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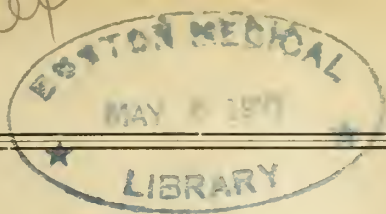


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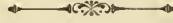
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THE JOURNAL

OF THE

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VOL. XVIII.

JANUARY, 1927

No. 1

*THE TREATMENT OF THE TOXEMIA OF PREGNANCY

By ADAM P. LEIGHTON, JR., M. D., Portland, Me.

To adequately consider and discuss the treatment of pernicious vomiting and eclampsia one would by necessity need more than the fifteen minutes allotted to-day. Inasmuch as the topic is of treatment alone, a part of an obstetrical symposium, there is no opportunity for the presentation of theories of facts to explain its etiology, and, too, the shortness of time precludes the possibility for a recital of the interesting pathological findings in this morbid condition. It is doubtful if any consideration of disease therapy presents a wider divergence of opinion and ideas than that involved in a discussion of the time-worn subject of pregnancy toxemia, and especially that of eclampsia and its treatment. Our ignorance of the true etiology of the disorder in the pregnant state, known as toxemia, combined with the altogether empirical treatment now in vogue, is alone responsible. Papers written on this subject are apt to be decidedly similar, generally incorporating numerous theo-

retical explanations to prove its origin and advocating only that particular line of treatment coincident with the author's personal experience or preference. This short dissertation will prove to be no exception, for I have little of true originality to offer. It is my intention to offer a routine treatment for toxemia of pregnancy with a small amount of comment as to its indications and limitations.

The etymology of the word toxemia suggests the thought that it is a condition of the blood in which are contained poisonous products, either those produced by the body cells and not properly eliminated, or those due to the growth of microorganisms. One might assume these toxins or poisons to be of alkaloidal nature, leukomains, or substances similar to these, which are the result of deficient or abnormal general metabolism, or morbid processes occurring in special organs, as the liver, kidney or thyroid, or again, maybe, of foetal or placental origin.

*Read before the June Meeting of the Maine Medical Association.

The treatment of the toxemia of pregnancy has to do with the management of a symptom-complex, about the origin and cause of which very little is definitely known. Our treatment, as I have stated before, is more or less empirical and haphazard for that very reason. The explosion called eclampsia is but one phase or expression of this toxemia. The time to treat eclampsia is before it occurs, if you will allow for such a seemingly paradoxical statement. We all admit that only coincident with pregnancy do we ever observe a train of symptoms and pathological changes which are similar to it.

The present day method of classification of the toxemias of pregnancy is admittedly inadequate. However, clinically, the toxemic patients group themselves rather definitely under these three classifications:

1. The nausea and vomiting of early pregnancy, varying in intensity from the mildest forms up to that which we are wont to call hyperemesis gravidarum or pernicious vomiting.

2. The condition known as eclampsia. The occurrence of convulsions in a pregnant or puerperal woman.

3. The patients who suffer from chronic nephritis become pregnant, and because of the added strain of pregnancy light up their old nephritis and develop uremia and coma, or, as may happen in some instances, have in added combination toxemia of pregnancy, so-called.

Some women feel better, look better and act better when pregnant than ever before. They never experience nausea or vomiting. The majority of women becoming pregnant begin to have some nausea and vomiting shortly after conception occurs. Depending upon the

type of individual, I find a vast difference in the time in which this annoying symptom makes itself known, in women of phlegmatic nature, later than in those of a so-called neurotic type. While these physiological symptoms vary in intensity in these different individuals, we know that at the end of twelve or fifteen weeks it has largely disappeared, or the patient becomes so adjusted to it that little discomfort is experienced thereafter. It is my personal belief that all these women suffer from a mild form of intoxication, for the most part, caused by endocrine imbalance or dysfunction in the beginning. Those who withstand it, or overcome it, have ductless glands equal to the occasion, in contradistinction to those women in which it ultimately produces so-called pernicious vomiting of pregnancy. Pernicious vomiting is rarely seen before the second month of gestation, and it has usually terminated by the fourth month, either by cessation under treatment, by termination of pregnancy through therapeutic abortion, or by death of the patient, with or without evacuation of the uterine contents.

You all know too well the picture. Bronzing of the skin, tenderness of the liver, the jaundiced sclera of the eye, the sweet, sickening acetone odor of the breath, the thickly coated, dry tongue, the loss of weight, extreme thirst, the concentrated, bile colored, scanty urine and the albuminuria with casts. This clinical picture of pernicious vomiting is similar in all cases.

When a woman first seeks aid and relief from the nausea and vomiting of pregnancy, one should differentiate early between that which seems to be just an excessive vomiting of pregnancy and that which is attended with symp-

toms of true pathology. It is the early treatment of these cases which become, or may become, pernicious, which counts. The case in which we procrastinate is often lost, and when we do ultimately wake up to the fact that we are dealing with a true toxemia, treatment which otherwise might have availed much is worthless. One point upon which I desire to be emphatic is this: When we have a patient who previously has battled through a stormy, toxemic early pregnancy, it behooves us to start rational treatment, immediately the diagnosis of subsequent pregnancy is made and not to dilly-dally around until the seriousness of the case is apparent. Medical treatment through the month, except for those minor digestive disturbances in milder cases, is poor business. To pour all sorts of drugs and potions down a hot, dry, burning throat, to an irritated, hypersensitive stomach, already unable to retain food or water, is obviously a silly procedure. Yet in this way one will see valuable time wasted, and oftentimes an ovum removed which might have been retained in utero through the application of early and sensible treatment.

The woman with pernicious vomiting is suffering from a paucity of body fluids for one thing. The dry, thickly coated tongue, plus the extreme thirst, the vomiting of a green very acid fluid, full of ropy mucus and even coffee ground material, makes this fact most apparent. The frequent small volume, low pressure pulse is added evidence. Urinalysis shows acidosis caused by loss of fluid and starvation. We are indeed dealing with a serious, oftentimes fulminating condition. Upon our success depends the continuance of pregnancy and the life

of the patient, and we have nothing to guide us, even under the most favorable of circumstances, except the outcome of two or three chemical tests and the observation of aforementioned clinical symptoms which, through experience, we accept as significant of mild or severe toxemia. While I make use of a definite therapeutic procedure, I do believe that many cases, especially the severer ones, resolve themselves into an individual proposition, whereby we have to discard routine for specific treatment. If we depend wholly upon the outcome of the tests for blood sugar, albumin, acetone and diacetic acid, or if we wait for such extreme signs as frequent pulse, rise in temperature, jaundiced sclera and coffee ground vomitus before we terminate the pregnancy, we shall oftentimes have a dead patient in the end.

I believe in the early application of routine treatment, but insist that we must remember that every case is a case unto itself and we cannot procrastinate. I have respect for those whose religious belief differs from mine, and where, in time of necessity, evacuation of the uterus is not allowed, but on the other hand, I am forced to say that I have seen the dire results of non-effective treatment and sentimentalism. I repeat. A careful method, therefore, should be followed in the conduct of all these cases, so that improvement may be expected in due time, or the reverse be accepted as a definite indication for interrupting the pregnancy.

The following routine has been followed more or less in nineteen cases which have come under my care in the last six years, with uniform success in fourteen cases, which were under complete control. In one case where I was

called as an occasional consultant, death of the mother followed interruption of the pregnancy. In two other cases, death occurred wholly from a profound toxemia plus operation, where for reasons of religious prejudice the operative interference was made only as a last resort. One other case recovered nicely and returned home, only to suffer a relapse a little later, due to improper care, and in the end died in another hospital, under another man's care. One more case with a month's treatment in the hospital, with apparent excellent results, suffered an extreme attack of multiple neuritis and had to be aborted.

First of all, hypermesis gravidarum demands hospital care and treatment. It cannot be properly handled at home. The patient should be kept in a quiet, slightly darkened room and all callers, even to the husband and family, should be excluded from the room.

The taking of medicine, food or water by mouth should be stopped at once. Pelvic examination should be made to assure normal pelvic findings. Lavage of the stomach with a soda bicarbonate solution is first done upon entrance to the hospital. The daily routine is begun at 7.00 A.M. With the patient in the left lateral position, the colon is irrigated with a gallon of warm solution containing two table-spoonsful of soda bicarbonate. The solution is introduced through a small colon tube connected by a glass connecting pipe to about three feet of rubber tubing, with a glass funnel attached. Two quarts at a time is slowly run in. Easy massage of the bowels is made in a rotary fashion, following the route of the large bowel from the caecum up and across the transverse

colon and down the descending colon and sigmoid. After the expulsion of the entire amount of fluid, a "Murphy drip" of soda bicarbonate solution, with 10% glucose, is given. 350-500 c.c., with a 20-60 drop, is about all the rectum will tolerate at one time. This, without preliminary colonic irrigation, is repeated in the late afternoon. 40-50 c.c. of trophimine or panopepton may be added to each of the drips, if one believes in the efficacy of same.

An hour after the completion of the afternoon drip, 40 grains of bromide and 30 grains of chloral hydrate are given in four ounces of water, per rectum, if the patient is restless or sleepless. As the patient improves these amounts may be lessened materially.

Lutein or luteum extract is given twice daily — an ampoule hypodermically night and morning. I believe heartily in its use and am certain of its beneficial action. In any woman where the characteristic symptoms of "ovarian insufficiency" have been present previous to the pregnancy, luteum extract is especially indicated. The history of hypermesis in a patient before the present pregnancy calls for the administration of luteum extract before the expected actual toxemic symptoms manifest themselves, to be continued well into the fourth month. All endocrine products are slow in action and one cannot expect beneficial results in any case where organotherapeutic treatment is instituted long after severe toxemic symptoms have made themselves known.

I personally have had little use for nutrient enemata. I like to keep away from such things if possible. The question of nutrition is one which unnecessarily bothers the family and many doc-

tors. While I agree that the acidosis is the result of starvation, it is usually nicely taken care of by the "Murphy drip" containing the soda and glucose. To add other irritating substances to the rectum, which for some reason or other is especially intolerant and irritable, is bad business. Digestion and metabolism is more or less in actual abeyance in these toxemic cases anyway, and we obtain little good from attempted nutrition per rectum.

Many women experience violent intestinal cramps when the "Murphy drip" is given and vomiting is sometimes induced thereby. Under such conditions, and where the rectum is extremely irritable, subpectoral infusions of sterile soda bicarbonate solution are given in place of the drip. As soon as the acidosis is overcome, and the dry, cracked, herpetic lips, dry tongue and burning throat have disappeared, it is my policy to give teaspoonful doses of malted milk, made with water. A little later this is supplemented with crackers, dry toast, zwiebach or even thin broth. Kalak water, ice cold, as soon as it can be borne, in frequent wineglass doses, is efficacious.

While this treatment is empirical, for the most part, by its use a considerable number of patients recover and continue well throughout the remainder of pregnancy. There are those who show no improvement under this plan. After forty-eight hours to several days of treatment and observation, without improvement, I believe in emptying the uterus as quickly and with as little shock and loss of blood as possible. I have had bitter experiences where I have continued treatment which availed nothing, just to please the patient and her family.

Our duty to these women is twofold: First, we want to spare her life, and secondly, the dictates of humanity appeal to us to spare the ovum as well as the life of the mother who is imperiled by the overwhelming storm of toxic material which so rapidly menaces her. We are all actuated by a desire to do the right thing, but we cannot allow ourselves to err through silly sentimentalism, when the treatment has been unavailing and the possibility of dissolution is near at hand.

When one essays to present a dissertation on the topic of eclamptic treatment, he either aligns himself on the side of the advocates of strict conservation or with the advocates of immediate radical operative treatment. There is no "middle ground" or opportunity for "straddling."

I have long pictured myself as a conservative in the treatment of eclampsia, and some twelve years ago, as some of you may remember, it was I who offered before this society a paper on the conservative treatment of eclampsia, outlining the so-called "Dublin Method," or "Morphine treatment," as it was wrongly called. These rules of technic systematized and recommended by Hastings Tweedy, of Dublin, clearly demonstrated the superiority of this therapy over any other at that time, and in the last decade, reports and results in this country from those who followed this line of treatment have proven this statement to be a fact.

My opinion is unchanged, for the most part, and while I see very little actual eclampsia myself, my mode of treatment would be along the lines which I now have the temerity once more to offer for your consideration.

When I say that I see very little ec-

lampsia, I unfeignedly state that I should be ashamed indeed were a patient of mine, in private practice, to exhibit this disease. Just as we would be ashamed if sepsis followed parturition in our care, so should the onset of convulsions in pregnancy have the same effect. That eclampsia is usually a preventable malady has, in my mind, become almost a conviction. That there are exceptions, however, I am willing to admit, especially when, in spite of painstaking care, convulsive seizures so quickly follow the earliest symptoms of toxemia as to render prophylactic treatment valueless. These cases are, I believe, quite rare. My conclusions are the result of observation for fourteen years of cases seen in private hospital practice. I have no recourse to general hospital clinics, hence the reason for this statement is obvious. It is not my purpose to prove that the toxemia of pregnancy, which occurs in about four per cent of all cases, is preventable, but that the most serious manifestation, eclampsia, can usually be overcome.

The treatment of eclampsia begins in its prevention. Proper pre-natal care and education of the public, to the end that women consult their doctors early, whereby proper diet is prescribed, attention to the organs of elimination is given, and periodic urinalysis and blood pressure readings is made, to my mind are the necessary points in prevention of this disease. I have a little pamphlet which I give to each patient, giving the rules for her proper care during pregnancy. Constipation, general pruritus, persistent headache, edema of the extremities (not due to pressure), epigastric pain, visual disturbance, vomiting, indigestion, as symptoms of toxemia are emphasized,

and their knowledge of these untoward symptoms, fortified with my insistence upon the periodic urine examination and blood pressure readings, offers abundant opportunity to prevent the onset of severe pre-eclamptic symptoms or eclampsia itself.

In any given case showing pre-eclamptic symptoms, immediate attention to the subject of diet and elimination must be given. If, with all possible care, the toxemia increases, and the patient is past her 36th or 37th week of pregnancy, I believe heartily in induction of labor. There is a tremendous difference in the desire for birth of the child at such a time as contrasted with the onset of actual convulsions. I do not believe for a moment that the delivery of the child in eclampsia is an important curative agency. We are "locking the barn door after the horse is stolen." Pregnancy is, of course, a predisposing cause of eclampsia, but I doubt absolutely if the uterine contents is the actual exciting cause. We are well aware of the deleterious effect of the toxemia or eclamptic poison on the child, and that it is this which adds considerably to the fetal mortality, so for that reason we would possibly obviate the death of the child by early delivery. Because of the truth of this statement, I reiterate that it is good treatment to induce labor in a patient who being near to or at full term, shows aggravating and ever-increasing pre-eclamptic symptoms, not lessened by treatment. There is little shock entailed, and it is easily and successfully obtained by the use of a Cooke's ring or by bongies, using the Krause method with cervical packing. In eclampsia, we have a different condition of affairs, and to attempt forcible delivery would

be the wrong procedure, as the chief objectionable point lies in the fact that it leads to severe shock of the already poisoned, irritated nervous system, and it is this shock imposed by immediate delivery after rapid artificial cervical dilation that oftentimes kills the patient.

The treatment of eclampsia should be properly considered under two heads—prophylactic and curative. I shall neglect reference to the former, as the rules for the proper hygiene of pregnancy are too well known to allow for tiresome repetition.

The Dublin method of treatment rests upon four principles:

1. Delivery when possible only. Accouchement force is not advocated in any form.

2. Limit metabolism and avoid further metabolism. This is done by starvation, morphine and gastric lavage.

3. Aid excretion. Purging and irrigation of the bowels. Sweating is never done! Bleeding in specially selected cases. Infusion of the breasts with a sodium bicarbonate solution. Saline is not eliminated in kidney disease, and it leads to locking up of fluid in the more solid tissues.

4. Treatment of special signs, such as respiratory weakness, cardiac weakness, etc. Morphine is used only to control the fits.

On commencement of the treatment, one-half grain of morphine is given, followed every two hours with a quarter-grain while the fits persist, until two grains in the twenty-four hours are given. Three grains may be given in many cases. When respirations fall to six or seven a minute, it is an indication that the limit for administration

of morphine is reached. Scopolamine or atropine may be substituted.

The stomach is washed out and a purgative poured through the tube. There is no importance to the nature of the purgative; it must be efficient. After stomach washing, a catheter is passed, the urine drawn, measured and examined. The patient is turned on her side and the rectum and lower bowel thoroughly washed out with a solution of sodium bicarbonate through a long rubber colon tube. Lavage must be very thorough and the procedure persisted in until large amounts of fecal matter have been washed out. The passing of the colon tube is a most important question of technic. The simple introduction of the tube through the anal opening until the greater part has disappeared is no proof that the tube has passed to the sigmoid. On the other hand, more frequently does it curl up in the pouch of the rectum; therefore, we only get a return flow from the rectum during irrigation. A digital rectal examination should be made in each case to insure the proper insertion of the tube.

When the bowel is well cleared, leave one and a half pints of the sodium bicarbonate solution in the rectum. One other point is well worth mentioning. I have noted that the irrigation is productive of better results if lateral massage of the abdomen is combined.

If the urine remains scanty, submammary infusion of the same kind of a solution is practiced. Lay the comatose patient on her side, almost on her face, so that the mucus may run out. This is a matter of great importance, for if a patient lies on her back, mucus and saliva trickles over the insensitive

larynx and adds to the œdema of the lungs. I have no doubt but that this is the most fruitful cause of the pulmonary œdema of eclamptics.

Labor is never induced at this juncture, but if it should take place (as it generally does), its progress, as a rule, is never interfered with. When labor has continued to a point where the os is sufficiently dilated, forceps may be applied and the patient aided in her delivery.

Parenthetically, I would state that Dr. Lee Dorsett, of St. Louis, has recently reported a large number of cases where he has used the intramuscular injection of magnesium sulphate for the control of convulsions in eclampsia. His treatment is decidedly conservative and similar to that which I have just described. Injections of magnesium sulphate deep into the gluteal muscle have been used in place of morphine or any other form of medication for control of the convulsions. He uses a 25% solution, sterile and nonanhydrous, which is put up in 15 c.c. ampoules. An initial dose of 15 c.c. is given in the buttocks and guided wholly by the frequency and severity of the convulsions. This dose is repeated—even given hourly and up to 100 c.c. of the drug in twenty-four hours. I have had no experience with this particular type of treatment, but the results reported by him and others show that magnesium sulphate is extremely valuable in the control of the convulsions.

Now and then, in spite of the conservative treatment which I have outlined, the blood pressure remains high, coma is not lessened and the convulsions continue. Immediate delivery under such circumstances is imperative. I should not want to see a woman die un-

delivered. In the cases where pregnancy is not advanced enough for the possibility of a viable child, we should deliver vaginally. In most multiparæ of this class the cervix is soft and readily dilatable. These can be delivered easily. The tendency is to perform vaginal deliveries too rapidly. In primiparæ with tightly closed elongated cervixes, Cesarean Section is undoubtedly the indication. Too, I believe that in primiparæ who show unmistakable signs of pulmonary œdema, Cesarean Section should be elected when a tight, undilated cervix hinders delivery per viam naturalis.

The most valuable point in the treatment of eclampsia, with perhaps the single exception of the administration of morphine in sufficient amounts to control the fits, is elimination. Elimination in this sense means a great deal more than simply giving an enema and a cathartic. It means that the attendant must give hours of time to the proper eliminative technique. Prolonged irrigation of the bowels will bring forth extraordinary amounts of putrefactive intestinal debris and fecal material. This is of prime importance as a curative agency.

Two other points are of value in the treatment of this malady. I refer to diet and venesection. Starvation should be practiced for three days following the return to consciousness, and when food finally is given it should be of the blandest sort. I find that a diet of malted milk made with water is adequate for some days, administering it in small quantities. The harmful effect of food at these times has been satisfactorily proven in the cases which have come to my attention, and I am convinced that food plays a most im-

portant part in the etiology of eclampsia, if it is not the actual exciting cause. In the pre-eclamptic stage there is aberration of digestion, and in the period of unconsciousness digestion is absolutely in abeyance. It is at these times that food exerts its most harmful action. We all think, too, that we are supporting the patient's strength and enhancing the ultimate possibility of recovery by administering nourishment after a woman has struggled to consciousness through this terrible disease. This is where the error is made. We should withhold food for a considerable length of time. I have no doubt that proteid and foods of a large nitrogenous content are the chief trouble makers. For that reason, it seems that carbohydrates are the more desirable when nourishment finally has to be given.

In venesection we certainly have a valuable aid in the treatment of some cases. I would not employ it before delivery, as a rule, for we cannot tell beforehand how great the loss of blood will be during delivery. After delivery, if the extreme symptoms continue, with high blood pressure, and cyanosis, a decided benefit is gained by the loss

of three or four pints of blood, according to the size of the patient and the apparent total amount of her blood. It undoubtedly removes considerable poison and favors diuresis.

In conclusion, may I say, *avoid accouchement forcè* in the treatment of eclampsia. Vapor baths, or any means to promote diaphoresis, are obviously improper methods. Eclamptics are suffering from a paucity of fluid in the circulation, and this, in spite of the tissues being possible solid with œdema. What is wanted is a less saturated condition of the blood, and it is impossible to suppose that profuse sweating can have any other action than to increase this abnormality. Only a minimum of toxins can be thus eliminated, if any.

No other disease better repays the attendant for personal supervision. Patients with a profound toxemia make a slow recovery. Elimination is always slow. Heart failure may supervene, although no new poison may be added to the blood. For these reasons a certain number of deaths must be expected; nevertheless, it is impossible any longer to pretend that the treatment of eclampsia is either empirical or useless.

NOTE

"Word has been received from the Dermatological Research Laboratories that they appreciate the patronage given to the D. R. L. Arsphenemines by physicians in this State.

"These products have been advertised in this JOURNAL for some time, and it is gratifying to know that the readers have

taken cognizance of the support of the advertisers. Also, that they are aware of the quality, safety and therapeutic efficiency of the Dermatological remedies for syphilis, which were the first to be made in this country and supplied to the physicians of America when the World War was in progress."

DIABETIC NEURITIS

By E. R. BLAISDELL, M. D., Portland, Me.

Patient—Mrs. Wm. S., 62 years of age, American housewife.

Family history: Father died at 70 of pneumonia. Mother died at the menopause of unknown cause. One brother died of tuberculosis. Another died of an "abscess." One sister living and in good health.

Past history: Had measles, mumps and whooping cough in childhood. Never had diphtheria, scarlet fever or typhoid fever. Has had three miscarriages. Admits three illegal abortions. No children living. Three years ago, she had a slight cold and called a physician, who examined her urine and told her that she had diabetes. He prescribed a low carbohydrate diet. She soon recovered from her cold and disregarded her diet. She weighed 190 lbs. at that time. She gradually lost weight, and on April 15, 1925, she weighed 150 lbs. She called the writer at that time, on account of a superficial infection of the right leg. The urine contained 5% of sugar with no acetone. She complained of polyuria, polydipsia, polyphagia and loss of strength. She refused both hospital and insulin treatment. She was put in bed on a diet containing 20 grams of carbohydrate, 60 grams protein, and fat enough to make 800 calories. Mild antiseptic solutions were applied to the leg. The urine became sugar free within a few days and has remained so. The weight gradually dropped to 137 lbs. The diet was worked up to 60 grams protein, 50 grams carbohydrate, and fat enough to make 1200 calories, and the patient was let out of bed. She was in bed for three weeks, the leg being practically healed at

the end of this time. 1200 calories, although a low diet, seemed to be a maintenance diet for her, as the weight remained constant. On June 1st she went away for the summer.

Present illness: On August 15th, the patient returned home. For ten days previous to this time, severe pain had developed in both arms and both legs. This had gradually grown worse until she was unable to sleep nights. She could not dress herself without assistance and was confined to a chair constantly. The 24-hour urine was negative for sugar and acetone. The blood sugar was 220 mg. per 100 cc. of blood, sugar was 220 mg. per 100 c.c. of blood, three hours after breakfast. Her condition remained about the same for some time. Salicylates, liniments and opiates were administered with only temporary relief. She was finally persuaded to enter the hospital for treatment, on October 26, 1925.

Physical examination: An elderly looking woman, 5 ft., 4 in. tall, weight 137 lbs. She sits in a wheel chair with each arm on a pillow for support. Temperature normal. Eyes react to light and accommodation. Teeth false. Throat in good condition. Tongue rather dry. No rigidity of the neck. Thyroid not enlarged. Chest contains no rales or dullness and breathing is uniform. Apex of the heart 2cm. beyond the M. C. line. Soft systolic murmur at the apex. No thrills. Blood pressure 145/70. Slight thickening of the radial arteries. Abdomen flabby. No dullness or percussion. No tenderness or rigidity. Liver not enlarged. Spleen not felt. Vaginal examination

Mrs. Wm. S. Admitted October 26, 1926

HOSPITAL CHART

DATE	DIET			URINE			BLOOD			INSULIN			Weight lbs.	REMARKS
	Protein gms.	Carbo- hydrate gms.	Fat gms.	Total Calories	Sugar	Ace- tone	Albu- min	Sugar mg. per 100 c. c.	Urea mg. per 100 c. c.	Blood Pressure	Wasser- mann	Total in 24 hrs.		
Oct. 26	60	50	62	1000	000	000	000	*476	12.5	145-70	Neg.	12	137	24-hr. specimen urine—negative
27	60	50	62	1000	000	000	000					15	137	24-hr. specimen urine—negative
28	60	50	62	1000	000	000	000					16	137½	24-hr. specimen urine—negative
29	60	50	62	1000	000	000	000					20	136½	24-hr. specimen urine—negative
30	60	50	62	1000	000	000	000					24	137	24-hr. specimen urine—negative
31	60	50	62	1000	000	000	000	241				26	135½	24-hr. specimen urine—negative
Nov. 1	60	50	62	1000	000	000	000					32	136½	24-hr. specimen urine—negative
2	60	60	80	1200	000	000	000					36	138	24-hr. specimen urine—negative
3	60	60	80	1200	000	000	000					36	137½	24-hr. specimen urine—negative
4	60	60	80	1200	000	000	000	149				37	137½	24-hr. specimen urine—negative
5	60	60	80	1200	000	000	000			140-80		12	140	24-hr. specimen urine—negative
												7 A.M. 13 Noon 12		
6	60	60	80	1200	000	000	000					37	139½	24-hr. specimen urine—negative
7	60	60	80	1200	000	000	000	147				37	137½	24-hr. specimen urine—negative
8	60	60	80	1200	000	000	000					37	137½	24-hr. specimen urine—negative
9	60	60	80	1200	000	000	000					37	139	24-hr. specimen urine—negative
10	60	60	80	1200	000	000	000	137				37	139	24-hr. specimen urine—negative
11	60	60	80	1200	000	000	000					36	136½	24-hr. specimen urine—negative
12	60	60	80	1200	000	000	000					35	136½	24-hr. specimen urine—negative
13	60	60	80	1200	000	000	000					35	137	24-hr. specimen urine—negative
14	60	60	80	1200	000	000	000			145-80		35	136½	24-hr. specimen urine—negative
15	60	60	80	1200	000	000	000					35	137	24-hr. specimen urine—negative

Slight reaction at 2.30 P. M.

Discharged

*Blood taken 90 minutes after breakfast. All other specimens taken before breakfast.

Slight reaction at 2.30 P. M.

negative. Knee jerks decreased. Unable to test ankle or toe reflexes on account of pain and stiffness. Healthy-looking scar in skin over the right tibia. Complains of tenderness and pain when legs, arms or forearms are touched. Considerable swelling in both wrists.

The diet, insulin dosage, urine tests and blood sugar determinations, may be seen in the chart. While in the hospital, the patient's arms and legs were baked in an electric baker for one-half hour, twice daily. Only temporary relief from pain was noticed. It was necessary to administer codein several times daily. Morphine was occasionally given. Slight improvement in the pain was noticed during the last few days of hospital treatment. The patient was discharged from the hospital Nov. 15, 1925, on a diet of 60 grams protein, 60 grams carbohydrate, and fat enough to make 1200 calories, requiring 35 units of insulin daily. One week later, the insulin dosage was changed to 30 units daily, 12 at 7.00 A.M., 10 at noon and 8 at night. On Dec. 8, 1925, the blood sugar was 135 mg. at 11.00 A.M. The neuritis was much better, only one codein table being needed at night. The patient was again seen on Feb. 12, 1926. Her blood sugar was 130 mg. at 11.00 A.M. She had taken nothing for pain since Jan. 1st, and for the last week had been doing all of the housework for herself and husband. Her diet was raised to 60 grams protein, 70 grams carbohydrate, and fat enough to make 1500 calories. Her insulin requirement was 30 units daily.

This woman's blood sugar has remained under 140 mg. and her present diet is 1500 calories. She is inclined to

be obese and holds weight on low calories. Her weight is 146 lbs. She is taking 10 units of insulin morning and night, pain has been practically absent, and no sedatives have been necessary. She is doing her housework without assistance, feels well and enjoys life once more.

This case is rather atypical for two reasons: First, a blood sugar from 241 mg. to 476 mg. without urinary sugar is very uncommon, and especially so in a patient whose kidney circulation and function is so good that albumin, casts, hypertension and retention of nitrogen in the blood are absent. Her kidneys would undoubtedly show evidence of vascular change, but not enough to account for such a high renal threshold. The question might be raised as to the time that the urine samples were collected, and that the patient might have excreted sugar, without detection, when the blood sugar reached its highest level. This was impossible, as the urine was examined at 7.00 A.M., noon and 4.00 P.M. The 24-hour specimen was also examined. The reason that a renal threshold for sugar should be high in one patient and low in another is not clearly understood. *Stone recently reported his observation of 1,000 cases of diabetes, 36 of which showed an average hyperglycemia of 220 mg. without urinary sugar. He found that those cases which had been studied at necropsy and showed hyaline degeneration in the Islands of Langerhan's were very similar to the cases that were found clinically to present high blood sugar, without showing sugar in the urine. He concludes that this hyaline degeneration is a common change in those who have had

*Hyperglycemia without glycosuria in 1,000 diabetes patients. C. T. Stone, M. D., *Journal A.M.A.*, Aug. 7, 1926.

diabetes over a number of years and in severe youthful patients, in whom the disease has run a very much more rapid course, and that it is a terminal change, associated clinically with hyperglycemia without glycosuria. "Yet," he says, "granting the accuracy of this deduction, it is still difficult to explain the exact mechanism in the production of the changes that cause an elevation in the renal threshold for sugar." Second, the almost complete relief of pain and disability in a patient with diabetic neuritis, within a few weeks after a stubborn hyperglycemia has been reduced, is rather out of the ordinary. Even though the neuritis is directly due to a high blood sugar, it frequently takes months for the symptoms to disappear after the blood sugar is lowered. Pain, simulating neuritis, in the diabetic may be the result of the toxic effect of excess sugar upon the nervous system or due to organic changes in the blood vessels.

Both causes frequently play a part in the same patient. It is for this reason that it is always wise to give a guarded prognosis in this condition. It is needless to say that other causes of neuritis must also be eliminated.

The time has passed when the conscientious physician should assure his patient that he is not a diabetic, just because he is unable to find sugar in his urine. Blood sugar determination should be a routine. This is especially important in those patients who are predisposed to diabetes by heredity or obesity, and in those who give a history of having had a glycosuria. As age advances in the diabetic, organic changes in the blood vessels and obscure changes in the pancreas may so raise the renal threshold that glycosuria will not appear. Absence of urinary sugar under these conditions does not make the patient any less susceptible to such diabetic complications as gangrene and neuritis.

NECROLOGY

Charles Dole Edmunds

Bangor, 1859-1926

After much mental anxiety for a year or more past and after acute physical suffering in the last week of his life, Dr. Edmunds, a member of our Association, has gone along to the reward which comes to all of us according to our deeds in this world. He was born on June 4, 1859, at East Corinth, Maine, the son of Charles Edward and Caroline Mathilda Stockman Edmunds, educated at the Waterville Classical Institute and Colby University, and finally obtained his degree at the Harvard Medical School in 1886. Moving into Ban-

gor immediately after his graduation, he served as interne at the Eastern Maine General Hospital and then took up the active practice and office of the late Dr. Calvin Seavey, A. M., M. D., and soon obtained a handsome clientage.

He married Miss Roberta Mae Giunoda, of Philadelphia, and is survived by her and a grandson.

Of fine personal appearance, and a good speaker in medical discussions, Dr. Edmunds was an active attendant on the meetings of this society, and although he spoke often on papers of others, it is difficult, if not impossible, to find any from his own pen.

***STATEMENT OF THE FACTS AND OPINIONS AGREED TO BY
THE INTERNATIONAL MEETING ON CANCER CONTROL
HELD AT LAKE MOHONK, N. Y., U. S. A.,
SEPTEMBER 20-24, 1926**

Although the present state of knowledge of cancer is not sufficient to permit of the formulation of such procedures for the suppression of this malady as have been successfully employed for the control of infectious diseases, there is enough well established fact and sound working opinion concerning the prevention, diagnosis and treatment of cancer to save many lives, if this information is carried properly into effect.

1. The causation of cancer is not completely understood, but it may be accepted that for all practical purposes cancer is not to be looked upon as contagious or infectious.

2. Cancer itself is not hereditary, although a certain predisposition or susceptibility to cancer is apparently transmissible through inheritance. This does not signify that, because one's parent or parents or other members of the family have suffered from cancer, cancer will necessarily appear in other persons of the same or succeeding generation.

3. The control of cancer, so far as this subject can be understood at the present time, depends upon the employment of measures of personal hygiene and certain preventive and curative measures, the success of which depends upon the intelligent co-operation of the patient and physician.

4. Persons who have cancer must apply to competent physicians at a sufficiently early stage in the disease, in order to have a fair chance of cure. This applies to all forms of cancer. In some forms early treatment affords the only possibility of cure.

5. Cancer in some parts of the body can be discovered in a very early stage, and if these cases are treated properly the prospect for a permanent cure is good.

6. The cure of cancer depends upon discovering the growth before it has done irreparable injury to a vital part of the body and before it has spread to other parts. Therefore, efforts should be made to improve the methods of diagnosis in these various locations and the treatment of the cancers so discovered.

7. The public must be taught the earliest danger signals of cancer which can be recognized by persons without a special knowledge of the subject, and induced to seek competent medical attention when any of these indications are believed to be present.

8. Practitioners of medicine must keep abreast of the latest advances in the knowledge of cancer, in order to diagnose as many as possible of the cases of cancer which come to them.

9. Surgeons and radiologists must

*Campaign notes of the American Society for the Control of Cancer, October, 1926.

make constant progress in the refined methods of technic which are necessary for the diagnosis and proper treatment not only of ordinary cases, but of the more obscure and difficult ones.

10. There is much that medical men can do in the prevention of cancer, in the detection of early cases, in the referring of patients to institutions and physicians who can make the proper diagnosis and apply proper treatment, when the physicians themselves are unable to accomplish these results. The more efficient the family doctor is, the more ready he is to share responsibility with a specialist.

11. Dentists can help in the control of cancer by informing themselves about the advances in the knowledge of the causes of cancer, especially with relation to the irritations produced by imperfect teeth and improperly fitting dental plates. They can also help by referring cases of cancer which they discovered to physicians skilled in the treatment of cancer in this location. It may be doubted whether all dentists fully realize the help which can be obtained from X-ray photographs in revealing not only the state of the teeth,

but the condition of the bone surrounding them.

12. Medical students should be instructed in cancer by the aid of actual demonstrations of cancer patients, and this to a sufficient extent to give them a good working knowledge of the subject.

13. The most reliable forms of treatment, and, in fact, the only ones thus far justified by experience and observation, depend upon surgery, radium and X-rays.

14. Emphasis should be placed upon the value of the dissemination of the definite, useful and practical knowledge about cancer, and this knowledge should not be confused nor hidden by what is merely theoretical and experimental.

15. Efforts toward the control of cancer should be made in two principal directions: (1) the promotion of research in order to increase the existing knowledge of the subject, and (2) the practical employment of the information which is at hand. Even with our present knowledge many lives could be saved which are sacrificed by unnecessary delay.

BOOK REVIEW

Standards for Diagnosis of Pulmonary and Glandular Tuberculosis Published by National Tuberculosis Association.

Beginning in 1917, there have been five editions before this of diagnostic standards in tuberculous. The first were suggestions in attempt to harmonize the standards of differing authorities which have gradually become more and more universal. This publication is the last word in authority and is accepted by the U. S. Government,

It is an epitome to every practitioner, with instructions in diagnosis, classification and disposition of tuberculosis of the lungs and cervical glands. The new chapter on cervical glands is a recent addition, and is a very concise and valuable one. This little book is obtained without money and without price from the State Public Health Association. Let every doctor keep one on his table or within reach of his hand.

C. B. SYLVESTER.

JOURNAL OF THE MAINE MEDICAL ASSOCIATION

Dr. Frank Y. Gilbert, 148 Park St., Portland, Editor-in-Chief

Dr. James A. Spalding, Portland, Necrologist

Dr. Bertram L. Bryant, Bangor, Secretary Maine Medical Association

Dr. Stanley P. Warren, Portland, Chairman, Board of Councilors

Dr. Clarence Kendall, Augusta, State Commissioner of Health

Dr. C. A. Moulton, Hartland, Chairman Committee on Public Relations

Dr. E. H. Risley, Waterville, Chairman Cancer Committee

Dr. Thomas A. Foster, Portland, Chairman Scientific Committee

EDITORIAL COMMENT

The Physician in Politics

Every now and then we read in the medical papers throughout the country the proposal that physicians shall go into politics to improve the condition of the people and the status of the profession as a whole.

So, too, demands have been made for a physician on the Governor's Staff. This last ideal has been obtained in Maine, but we doubt if the results reached our expectations. It would seem better for all concerned if a physician were appointed to the Council instead of being chosen from a political party.

Laying this point aside, we here return to the topic of our editorial, on the story of a physician who went to Augusta full of hope of what he was going to do for the people and the profession. After the session was over, he said that he went to the Legislature to try and get something done, but he was "log-rolled" out on every suggestion made for improvement; that it cost him \$2,000.00, including his practice lost, and that he came home and went to work again as a plain country doctor,

convinced that the doctor in politics could accomplish little so far as the Legislature was concerned.

From this standpoint we are now led to suggest that it would be excellent for all physicians in the Legislature to vote for the general policies outlined by the editorial board of the *Journal of the A. M. A.* and of its trustees. We are led to this more earnestly because we have heard that physicians have voted in favor of the Shepherd-Towner bill, in spite of the continuous opposition of the editors of the *Journal of the A. M. A.* against this effort on the part of some well-meaning people to injure the practice of all physicians.

The ideal of the Shepherd-Towner bill is good, and it sounds fine to think we are saving mothers and babies; but this is to be accomplished, first, by surrendering our rights as a state; second, by accepting a bribe from the government to our people; third, by accepting from other states money to help out our own work; and finally, to introduce midwives and nurses into the families of practitioners of medicine.

We are led, at this point, to inform

you that under the statistics just passed in to Washington, the infant and maternal mortality of Maine has diminished in the past year more than in a great many states that have accepted the Shepherd-Towner bill, and money, while we have used only the money given to our State Board of Health.

The best way, in our opinion, is to call to the attention of the President of our Association, and to the President-Elect, the good results so far obtained by our own efforts, and to have them urge all members of the Association who are members of the incoming Legislature of 1927 to vote for the policies of the A. M. A. J. A. S.

Annual Session of The American College of Physicians

Announcement is made that The American College of Physicians will hold its Eleventh Annual Clinical Ses-

sion in Cleveland, Ohio, February 21-25, 1927. Dr. Alfred Stengel, of Philadelphia, is President of The College, and Dr. John Phillips, of Cleveland, is the chairman of the Program Committee. The program will be of unusual interest to internists (including neurologists, pediatricists, roentgenologists, pathologists, dermatologists, psychiatrists and others engaged in the field of internal medicine). The Cleveland hospitals and the Western Reserve University will co-operate with The College in the presentation of the program. These programs constitute each year a post-graduate week on internal medicine of outstanding merit.

An invitation has been extended by The College to all qualified physicians and laboratory workers to attend the Cleveland Clinical Session. An attendance in excess of fifteen hundred is anticipated.

COUNTY NEWS AND NOTES

Androscoggin County Medical Society

The regular meeting of the Androscoggin County Medical Society was held at Dewitt Hotel, Lewiston, January 10, 1927.

Meeting called to order by Dr. W. W. Bolster, the President.

Records of previous meeting were not read.

The Nominating Committee submitted the following names as officers for the society for the year 1927, and they were duly elected.

President—Dr. B. W. Russell.

Vice-President—Dr. R. N. Randall.

Secretary and Treasurer—Dr. H. Sprince.

Board of Censors for two years—Dr. E. F. Pierce, Dr. T. J. Fitzmaurice, Dr. D. A. Barrell.

Delegates to Maine Medical Association for one year—Dr. R. A. Goodwin, Dr. H. Garcelon, Dr. A. W. Plummer.

Dr. Charles Weylan, of Boston, gave a very interesting talk on radium treatments.

Those present were: Drs. E. F. Pierce, W. W. Bolster, W. L. Haskell, H. Garcelon, W. E. Webber, H. Reed, E. Leathers, J. Sturgis, E. B. Buker, Wm. Fahey, L. J. Dumont, G. W. Twaddle, E. N. Call, Chas. Cunningham, G. A. Schneider, B. G. W. Cushman, E. C. Higgins, H. L. Irish, of Turner, L. P. Gerrish and A. W. Plummer, of Lisbon Falls, and C. Weylan and H. Lee, of Boston.

L. J. DUMONT, M. D.,
Secretary.

Kennebec County Medical Association

The annual meeting of the Kennebec County Medical Association was held at the Augusta House, Augusta, Maine, Tuesday evening, January 11, 1927.

Supper was served at 6.15 P. M.

The minutes of the last meeting were read and approved.

The Treasurer's report was read and referred to the Auditing Committee. It was voted to accept this report.

Dr. Arthur R. Daviau, of Waterville, was elected to membership. Dr. John O. Piper, of Waterville, was also elected to membership by transfer from the Somerset County Medical Association.

Drs. M. A. Priest, of Augusta, R. L. Reynolds, of Waterville, and F. H. Badger, of Winthrop, were appointed a committee on nomination of officers for the ensuing year. They reported as follows:

President—Dr. Frederick T. Hill, Waterville.

Vice-President—Dr. Richard H. Stubbs, Augusta.

Secretary and Treasurer—Dr. Frederick R. Carter, Augusta.

Board of Censors (three years)—Dr. John O. Piper, Waterville.

Delegate to Maine Medical Association (three years)—Dr. George R. Campbell, Augusta; Alternate, Dr. Elmer H. Jackson, Augusta.

The nominees were elected.

Resolutions were read by Dr. O. C. S. Davies, of Augusta, on the death of Dr. Frederick C. Thayer, of Waterville, which occurred September 23, 1926. It was voted that this tribute be made a part of our records, also a copy be sent to the immediate family.

The President's address was delivered by Dr. George R. Campbell, of Augusta, the retiring President, who gave a very interesting history of the organization of the Kennebec County Medical Association, January 29, 1868, and brief extracts from papers which were read, and of discussions which took place at the meeting for the first twenty years, showing the medical views at that time as compared with those of to-day.

Dr. L. P. Gerrish, of Lisbon Falls, President of the Maine Medical Association, was a special guest of the evening and spoke briefly on medical problems of county and state societies.

Dr. Roland L. McKay, of Augusta, read a very interesting paper on the "Toxemias of Pregnancy," which was discussed by Dr. Ralph Reynolds, of Waterville.

Dr. H. C. Partridge, of Providence, R. I., gave a very interesting and instructive paper on the "Occipito-pos-

terior Positions and Potter's Version."

These papers were freely discussed by members present.

The members and guests present were: Drs. O. C. S. Davies, S. H. Kagan, M. Marquardt, W. H. Harris, W. Sanborn, Wm. J. O'Connor, R. H. Stubbs, Oliver W. Turner, A. H. Sturtevant, C. W. Dyer, E. H. Jackson, G. R. Campbell, F. C. Tyson, R. L. McKay, M. A. Priest, F. R. Carter, H. J. Fredericks, V. T. Lathbury, of Augusta; F. H. Badger, of Winthrop;

H. L. Hill, J. E. Poulin, J. O. Piper, J. P. Goodrich, A. H. McQuillan, F. T. Hill and R. L. Reynolds, of Waterville; C. R. Simmonds, of Oakland; W. G. Chamberlain, of Fort Fairfield; E. D. Merrill, of Dover-Foxcroft; A. B. Libby, of Gardiner; L. P. Gerrish, of Lisbon Falls; H. G. Partridge, of Providence, R. I.

Respectfully submitted,

FREDERICK CARTER, M. D.,

Secretary.

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The United States Civil Service Commission announces the following open competitive examination:

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MEDICAL OFFICER
SENIOR MEDICAL OFFICER

Applications will be rated as received by the United States Civil Service Commission at Washington, until June 30, 1927.

There is especial need for medical officers qualified in tuberculosis or neuropsychiatry, for duty at hospitals of the Veterans' Bureau. There are a number of vacancies in positions in the Indian Service which call for training in general medicine and surgery. In addition, there is opportunity for appointment of specialists in practically all branches of the profession.

In addition to the Veterans' Bureau and the Indian Service, appointments from these examinations will be made to the Public Health Service, the Coast and Geodetic Survey, the Panama Canal Service, the Departmental Service at Washington, and other branches.

The demand for specialized medical officers in the Federal service is constant and the supply of eligibles is rarely equal to the demand.

Applicants will not be required to report for written scholastic tests, but will be rated on their education and training, and their practical experience.

NOTE—Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C.

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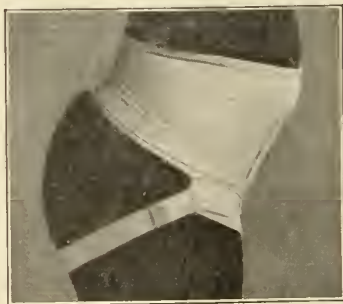
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The Journal assumes no responsibility for opinions expressed by the authors.

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No. 2

*SECONDARY FACTORS IN THE PRODUCTION OF UTERINE SEPSIS

By LEONARD H. FORD, M. D., Bangor, Me.

The question of puerperal infection is as old as the human race, but fortunately since the days of Lister epidemics of puerperal infection are practically a thing of the past, although too much remains.

Dr. Austin Flint, writing in the June, 1925, issue of the *American Journal of Obstetrics and Gynecology*, Department of Maternal Welfare, states: "It is estimated that 25,000 women die from childbirth annually in the United States. The actual maternal mortality reported from the registered area, and known to be incomplete, is 16,000, so that the estimated mortality of 25,000 is really too low. Of this total, from 6,000 to 8,000 women die every year from infection, 5,000 from eclampsia, and 4,000 from hemorrhage—all preventable or at least capable of great reduction."

At this point I would like to make an amendment to the subject by striking

out the word "secondary," for it is my personal opinion that all factors producing uterine infection are primary and are introduced from outside sources. If a patient who has been doing well has a chill, a rise of temperature after four or five days, which persists for more than twenty-four hours and cannot be accounted for by some other satisfactory explanation, we are practically sure to be dealing with an infection which possibly might be secondary, but can we be sure that the period of comparative calm was not the incubation period of the organisms introduced at the time of labor.

Of course, the general practitioner does not find, nor expect to find, hospital conditions in many of his home cases. In some homes, however, one does find pleasing conditions—experienced, if not professional help, clean beds and bedding; in other homes, the obstetrician longs for a clean, airy stable and a

* Read before the Maine Medical Association at Poland Springs, June, 1926.

pile of fresh straw. One often wonders how one woman can be delivered under the most adverse conditions and come through with the flying colors of health, while another passes through a storm of morbidity, which finally lands her on the shores of chronic invalidism, or costs her her life; for really, for the most part, it is not so much the question of mortality in these septic cases as it is the question of morbidity.

Probably 90 per cent of the women who reach the operating table later in life date their clinical history back to some stormy confinement. The explanation why so many women escape must be due to the splendid resistance to infection which they fortunately possess.

In most cases of infection, and by some authorities all cases, the obstetrician has only himself to blame, working, as he does, with dirty instruments and dirty hands, and making no effort to improve the dirty surroundings.

A short time ago, while looking through a textbook for nurses, I found this definition: "Obstetrics is that branch of surgery dealing with the management of pregnancy and labor." Now this is a fine, clear, concise definition of obstetrics, and one that should ever be kept in mind, for if obstetrics is a branch of surgery, then delivery should ever be conducted under (as near as possible) surgical conditions. Who is the surgeon, who values his reputation, who would attempt to handle a major operation under anything approaching the conditions that many practitioners will handle a confinement.

The uterus, the entire genital tract following parturition, is a huge open wound. Compared to it an appendectomy wound is a mere scratch. It is safe to state, without fear of contradic-

tion, that unless the infection is introduced it will not occur, and the obstetrician who, as soon as the third stage of labor is completed, hurries away, leaving his patient covered with blood and other debris to the care of the average practical nurse, so called, is as guilty of malpractice as is the surgeon who does a major operation under anything less than aseptic conditions.

The argument may be advanced that it is impossible to obtain anything like aseptic conditions in many of the places where we are compelled to deliver some of our patients, but no place is so bad that it can't be improved with soap and water, bichloride of mercury or lysol, and such equipment as every obstetrician should provide himself.

Small cervical tears occur in nearly every case, as do minor tears of the vaginal mucosa, and these usually heal with little or no trouble, but it is the impatient, hurrying, rough operator, who is anxious to be through with his case and be off—perhaps to a ball game or to the golf course—who applies his forceps or hurries a breech and drags an un moulded head through an undilated passage, who increases these tears and adds to his already large enough wound. No man who has not unlimited patience and unlimited sympathy for his patient in her hours of trial and labor, and is willing to drop all else and give all the time needed to his case, should ever practice the obstetric art. Nature has provided the passage for the passenger, and they will adapt themselves to each other if the operator will only wait, and watch while he waits, being ready to interfere only when interference is needed.

Pregnancy has been defined as a disease of nine months' duration, and it

has been said, also, that 50 per cent of pregnant women are toxic. We do know that women with eclampsia and placenta prævia are particularly prone to infection, and as the subjects of placenta prævia and eclampsia are to be dismissed later by others, I will pass on without further comment.

While it is the general opinion that all infection is introduced from without inward, some still hold to the theory of autogenitic infection. I cannot see how this is possible, except, possibly, in case of the acute infective fevers, as scarlet fever or diphtheria. On the whole, I believe that autogenous infection is in the same class with Sary Gamp's oft-quoted friend, Mrs. Harris, "there haint no such person."

I will close with a quotation from the same authority with which I

started: "The responsibility of the medical profession in further reducing maternal mortality is very great. I believe that a maternal reduction can be made now, at the present time, if only the knowledge possessed by the few could become more general.

Less operating, more conservatism, is, in my opinion, the outstanding remedy for the present high mortality. Education of the medical student, education of the mass of medical men not now expert, education of the public to demand better expert care, with a willingness to pay for it, the establishment of more hospitals devoted exclusively to maternity cases, with greater conservatism and more thorough asepsis in private practice, will go far towards accomplishing this desirable result.

*THE DIAGNOSIS AND TREATMENT OF PLACENTA PRAEVIA

By R. L. REYNOLDS, M. D., Waterville, Me.

Placenta prævia is the development of the placenta, in part or whole, within the zone of the dilatation of the uterus, and usually is spoken of as either marginal, partial or complete, depending upon the proportion of placenta over internal os. For instance, when edge of placenta prævia just reaches the internal os, it is called marginal placenta prævia; partial when only part of the opening of the cervix is covered, and complete or central when the os is completely roofed over. All of these terms are relative because of changes in the digital findings produced by the dilatation of the uterus; for example, a mar-

ginal after the cervix is open may become a partial, and a placenta that seemed to cover all of the cervix with two fingers dilatation subsequently may cover only half of the opening.

Placenta prævia occurs more frequently in multiparous patients, and especially those who have borne children in rapid succession. Some of the predisposing causes are chronic endometritis, subinvolution and twin pregnancies.

In the diagnosis of this condition, any painless, causeless, uterine hemorrhage in the last three months of pregnancy, if looked upon as a case of prævia until proven otherwise and

* Read before the Maine Medical Association at Poland Springs, June, 1926.

treated as such, it does seem that the high mortality rate occurring during this complication might be reduced. The diagnosis can only be made sure by direct examination and feeling the placenta tissue over the internal os. In the great majority of cases the cervix is softer than usual and its canal is more or less patulous, so that but little difficulty is experienced in carrying the finger through the internal os and feeling the characteristic spongelike placenta tissue. One must keep in mind that a polyp, cervical erosion, varicosities of vagina and carcinoma of cervix may also cause hemorrhage, and these should be easily excluded in the differential diagnosis. Ruptured uterus and separation of normally implanted placenta have to be considered and should be excluded fairly easily, especially the former by history of onset and findings on examination, such as uterus small at one side with neighboring tumor the fœtus; second, no uterine pains; third, no presenting part, uterus contracted and empty; fourth, may feel the tear and sometimes the gut.

The more difficult is the differential diagnosis between placenta prævia and separation of normally implanted placenta, and I would like here to take up some of the signs and symptoms found in the two conditions to help differentiate them.

SYMPTOMS.

Separation normally implanted placenta.

1. Sudden stormy onset.
2. Hemorrhage — internally or externally after a while.
3. Hemorrhage, usually severe, external or internal.
4. Usually only one hemorrhage.
5. Cessation of fetal movement.

6. Hemorrhage continues after the rupture of the membranes.
7. Usually symptoms of toxemia present.

SIGNS.

1. Abdomen distended, tense and painful to touch.
2. Fœtal heart tones absent.
3. Vaginally no placenta can be felt.
4. Feel head easily.

Placenta prævia.

1. Rather quiet onset.
2. Hemorrhage always external at start.
3. First hemorrhage generally mild and always external.
4. Several or history of several.
5. No change usually.
6. Hemorrhage usually ceases in all but central variety.
7. Seldom.
1. Abdomen as usual at time of pregnancy.
2. Almost always present.
3. Placenta palpable.
4. Usually head not engaged.

Bearing the above signs and symptoms in mind, one should be able to differentiate the two conditions. Having arrived at a definite diagnosis, the treatment should be individualized for each case. Here many factors must be considered, that is, possibility of hospital care; viability of child; condition of mother, whether patient in labor or not, amount of dilatation of cervix, whether complete or partial prævia.

When one has made even a provisional diagnosis of prævia the patient should be sent to the hospital and remain in bed there, and if at or near time of viability of baby and small amount of bleeding I believe the obstetrician is justified in temporizing, especially if

the patient is a late primipara. If not willing to remain in the hospital, and will not or cannot have nurses in constant attendance at home, with all provisions made to meet emergencies as they arise, it is better for the physician to go ahead and interrupt pregnancy whenever a definite diagnosis is made.

The simplest type is the marginal or lateral prævia, where the edge of the placenta can be felt through the internal os. Here the treatment of choice is the simple rupture of the membranes, the holding of the head down against the free margin of the placenta, either with hands or a tight Scultetus bandage; then, if hemorrhage is not controlled, packing cervix and vagina tightly, this to remain not over six to twelve hours on account of latent infection.

During labor. The usual condition met is more or less hemorrhage, with the os admitting two or more fingers. There are three methods for this, Braxton-Hicks version, use of hydrostatic bags, or Cesarean. Your choice must be made according to condition of mother, whether much loss of blood, and whether baby is very much premature or is dead or dying, so that its chances of living are very slim, in which case use Braxton-Hicks version by bringing down one thigh and making slight traction so that thigh of infant compresses placenta against cervix, stopping hemorrhage. Do not extract child now. Object is to stop hemorrhage, stimulate pains until cervix is ready for safe delivery. The above treatment gives very high infant mortality rate.

The second method is by introduction of hydrostatic bag through cervix and is usually easily done. It may be used to induce labor. The hydrostatic bag marks nearly as great an advance in the

treatment of placenta prævia as did the introduction of Braxton-Hicks version. This method should be used where condition of mother and child is good. The bag may have a two-pound weight attached to same for pressure, or safer to be cared for by physician, using only slight tension, or better being guided by amount of bleeding and using more pressure if necessary, but care here must be used so that too much pressure will not be made to tear through the blotting-paper-like cervix and lower uterine segment.

The third method, or Cesarean Section, is, I believe, the method to be used when at or near term with living baby and mother in good condition, not having lost a great quantity of blood and cervix rigid, and especially in a late primipara, because this method has proven to reduce the infant mortality rate a great deal, some authors stating from 50 per cent to 5 per cent and the maternal mortality rate not increased. Above treatment or Cesarean is especially efficient in central variety of placenta prævia.

Not the least important is the care and treatment during the third stage. Here the treatment must be carried out as conditions arise. If bleeding continues after birth of baby, and one has made sure by inspection of cervix that bleeding is not from lacerations, it is always safer to manually extract placenta, and then if bleeding continues, as it may, especially from atony of uterus, waste no precious moments on uncertain methods of hemostasis, but pack the whole utero-vaginal tract with gauze, remembering not to leave same over six to twelve hours.

There are several important points to be remembered in the treatment of

placenta prævia of all three varieties, some of which are: Never disturb or examine a suspected case of placenta prævia until you are prepared to deal with any condition you may find. Strive to save blood throughout all stages. Hospitalize all patients with prævia if possible. Strive to carry out all procedures under the strictest aseptic precautions, as these patients are more easily infected, due to their anemic condition. Be prepared to make up

loss of body fluids by—salt solutions, subpectorally or intravenously, by blood transfusion, and after delivery by proctoclysis.

Accouchement force, the rapid dilatation of the cervix, tearing and cutting it, if necessary, followed by the immediate delivery of the child, has no place in the treatment of placenta prævia, and it is opposed to all recognized principles of treatment.

*INDICATIONS FOR ABDOMINAL CAESAREAN SECTION

By H. W. GARCELON, M. D., Auburn, Me.

By abdominal Cæsarean Section we mean delivery of the child through the abdominal wall. There are three methods, transperitoneal, extraperitoneal, combined.

First, transperitoneal. This is accomplished by a longitudinal incision of the abdominal wall into the peritoneal cavity, then incision of the uterus and delivery of the child.

Second, extraperitoneal. This consists of a transverse incision of the abdominal wall, down to the peritoneum, then reflexion of the peritoneum from the bladder and front of the uterus, then incision of the uterus and delivery of the child.

Third, combined. This is done by means of a transverse incision of the abdominal wall into the peritoneal cavity, then a transverse incision of the peritoneum on the anterior wall of the uterus, and reflection of same from wall of the uterus, then suturing the peritoneal sur-

faces and in this manner walling off the general peritoneal cavity; then incision of the uterine cavity and delivery of child.

Cæsarean Section should be done whenever, by so doing, we can prevent maternal mortality, morbidity, foetal mortality or morbidity. Two terms should be explained here—Cæsarean at the time of election, and elective Cæsarean Section.

By the term, "at the time of election," we mean that period, of from seven to ten days previous to confinement, which is generally accepted as giving the best results. By the term, "elective Cæsarean Section," we mean that in our judgment Cæsarean is a matter of choice in any particular case.

Indications for Cæsarean Section may be classified as pelvic and non-pelvic.

Pelvic indications may be absolute or relative.

* Read before the Maine Medical Association at Poland Springs, June, 1926.

ABSOLUTE.

To-day it is generally conceded that if the conjugata vera or anteroposterior diameter of the inlet is seven and five-tenths centimeters, or under, it is an absolute indication for section.

If the conjugata vera is under five centimeters, it is the only way possible to save either maternal or fetal life. If over five centimeters, it is possible to save maternal life, but at great risk, not only of mortality but of morbidity.

In grossly deformed pelvis, that are encountered in such condition as osteomalacia (cordiform pelvis), where all the diameters are distorted, or the ovate form met with in rickets, with marked lengthening of the anteroposterior and shortening of the bischial diameters, Caesarean Section is the only method to be employed.

If the bischial diameter is eight centimeters, or under, it is an absolute indication for Caesarean Section.

Bony exostoses of any extent, sarcoma of the pelvic bone, extending into the surrounding tissues, in fact, any tumor that renders it impossible to deliver a living child, or in so doing exposes the mother to serious risk of life or health, can be considered as an absolute indication.

Whenever a disproportion exists between the fetus and the pelvic canal, to such an extent that it is evident that serious damage will happen to one or both of the patients, Caesarian Section should be performed.

To sum up, absolute indications of pelvic origin are deformed pelvis, through disease, mal-development, tumor formation of such a size as to prohibit vaginal delivery, and evident

gross disproportion between the pelvic canal and the fetus.

RELATIVE INDICATION (OF PELVIC ORIGIN).

A rule which may apply here is, in any given case where one or both patients will be benefitted by section without undue risk to either one, it ought to be performed. In relative conditions there is always present the selection of one of several methods of delivery. By what means will we decide which is the better method?

First, history; second, inspection; third, auscultation; fourth, palpation; fifth, pelvimetry.

History—The history of past confinements is important. If, in past confinements the labor has been difficult, with delivery of a dead fetus or injury to the mother, then Caesarean should be considered and selected as the conservative method.

Inspection—By this means we note any gross anomalies, such as hip disease, spinal disease, marked pelvic deformities, size of uterus, and roughly can decide on the relation of the size of the fetus as compared to the pelvic canal. Also presence of tumors will be noted.

Auscultations—This will establish the presence of fetal life and the condition of the maternal heart, lungs, etc.

Palpation—This should always be a bi-manual examination. By this means—and it is by far the most important—we can determine presence of pelvic or other masses, relative size of fetus and pelvic canal, presence of pelvic contractures. In case there is discovered some

abnormality, this examination should be conducted under full anesthesia.

Pelvimetry—With the use of pelvimetry, we establish the length of the different diameters, both external and internal. Any marked deviation from normal means a possible Cæsarean Section.

per vagina is possible, and delivery aided by a moderately severe forceps is probably, under ordinary house conditions, the choice as compared to section.

OTHER TYPES OF PELVIC DEFORMITY.

Kyphotic Pelvis—Due to spinal dis-

Normal diameters of great importance.

AT THE INLET,	the true conjugate	11	centimeters
	Two oblique	12.75	"
	Transverse	13	"
AT THE OUTLET,	the transverse	11	centimeters
	The antero posterior	9.5	"
	Sacro-cotyloid	8.75 to 9	"

External measurements or external pelvimetry. I.

Inter-spinous	26	centimeters
Inter-crestal	29	"
Intertrochanteric	32	"
External conjugate	21	" Bandelocque

Any marked deviation from the above means possible Cæsarean.

Internal Pelvimetry—This is accomplished by means of the internal pelvimeter. With this instrument we can gauge especially the diameters at the outlet.

Antero posterior	9.5 to 11.5	centimeters
Bis-ischial	11	"
Sacro-cotyloid	8.75 to 9	"

This last is often of importance in the case of a pelvis with a short bis-schial diameter. A bis-schial diameter of under eight centimeters is practically always an absolute indication for section.

By means of internal pelvimetry we establish the length of the oblique conjugate. By subtracting 1.5 to 2 centimeters, from this, we arrive at the true conjugate.

In the flat type, with the true conjugate of 7.5 to 8.5 centimeters, delivery

ease. The time of onset and the location of the lesion bears a distinct relation to pelvic deformity. The earlier the onset, and the greater the spinal deformity, the greater is the pelvic distortion. Also the lower the spinal involvement, the greater the pelvic

disturbance. The main pelvic deviation in these conditions is toward the funnel type, with iliac crests flaring, the spine and tuberosities of the ischii approaching each other, with rotation of the sacrum, thus bringing the tip of the sacrum nearer to the symphysis. There is shortening of the anteroposterior and transverse diameters at the outlet.

Coxalgic Pelvis (hip disease)—If it occurs early in life, it gives an obliquely contracted pelvis. If the child is in

bed, there is apt to be definite atrophic disturbance on the side of the disease, and the diseased side is distinctly smaller. When the child begins to walk, the weight will be thrown on the well side, causing elevation of this side. The well side will be pushed upward, inward and backward, thus giving an oblique contraction, which is general and involves both the inlet and the outlet. As a rule, this contraction occurs on the well side; but if the hip is ankylosed, in abduction and internal rotation, the reverse may be true.

Congenital Dislocation—Gives oblique contraction similar to hip disease, although less marked. In these conditions there is a distinct indication for careful examination, and Cesarean at the time of election should be determined upon, if there is probability of dystosia either at the inlet or outlet.

Nagele Pelvis—This form is rare. It is usually due to a lack of development or even practical absence of the sacral ala on one side, and results in an oblique contraction involving both the inlet and the outlet of the pelvis. Patients do not limp, measurements do not show the degree of contraction present. Attention will be drawn to this condition by the fact that one iliac crest is higher than the other, and that scoliosis is present; usually it is an absolute indication for section.

Robert Pelvis (or transversely contracted).—In this condition the transverse measurements are markedly shortened, while the anteroposterior diameter is lengthened. Section is absolutely indicated.

Osteomalacic Pelvis—In this condition the pelvis may assume any shape. It is rare. It affects principally the

spine and pelvic bones. The changes increase with each succeeding pregnancy. The history is one of muscular pains, generally involving the iliopsoas muscles, and is associated with rheumatoid pains, particularly in the pelvic region. These symptoms recur with increased vigor in each pregnancy and the difficulties of labor increase each time. Locomotion may be interfered with, and after delivery the patient may be inches shorter than before.

TUMORS OF THE PELVIS.

Exostoses may form at various points of the pelvis, usually on the anterior surface of the sacrum or posterior surface of the symphysis. Their size and contour will determine the procedure to be followed, but, if of any size, section is indicated.

Tumors of various types, such as enchondromata, fibromata, osteosarcomata, and carcinoma, may arise from any portion of the pelvis, and by size and location demand Cesarean Section.

FRACTURES.

Healed fractures may, by reason of excessive callus formation or malunion of the bone, render Cesarean necessary.

NON-PELVIC INDICATIONS.

Tumors of the uterus and other pelvic organs:

First, fibromyomata of the uterus; second, malignant disease of the uterus.

Fibromyomata of the uterus, when low down, or of any size, may render Cesarean the only solution, as they may fill the pelvic cavity to such an extent that spontaneous, and even operative delivery, per vaginam, will be impossible. As a rule, if the fibroids are large or multiple, pregnancy will not occur,

and if it does, early abortion is the rule, and if it does, early abortion takes place.

A fibroid may be located in the pelvis and block delivery. If the fibroid is pedunculated, it may be possible to lift it into the abdominal cavity and then deliver by the vaginal route.

Malignant disease of the uterus or cervix, such as carcinoma or sarcoma, calls for abdominal Cesarean with complete hysterectomy.

Ovarian Tumors depend on size and location as to their effect on delivery. If large and fixed in the pelvis, then delivery other than by section may be impossible. These cases should be subjected to Cesarean Section because it is of primary importance to correct the condition itself, and also, section is probably the safest for both patients.

Prolapse of the kidney may obstruct the pelvic canal.

Tumors of the vagina will at times be an indication for section.

Atresia—Atresia of the vagina or cervix, following repair operations in multiparæ, may make Cesarean method of choice, in order to avoid maternal and foetal injury.

In elderly primiparæ, rigidity of the tissues of the parturient canal may be an indication. Sometimes this rigidity occurs in young women.

Uterine displacements in themselves will seldom be a cause for section, unless other pelvic indications are present. Displacements with adhesions, however, will at times render section necessary.

Following Operations upon the Uterus or Adnexa—In this condition, dystosia is produced by the malposition caused by adhesions. The part of the uterus opposite the fixed area develops,

while the fixed portion does not, with the result that one portion of the uterus stretches out to a thinner than normal condition. Labor is weak, pains are ineffective, result is apt to be operative interference. In some of these cases the cervix is high up and vaginal delivery is extremely difficult.

Previous Cesarean Section—If performed because of some pelvic indication, in the first place, then all following deliveries should be by section. If there is no definite pelvic reasons, they may deliver normally.

Toxemia—In elderly primiparæ, with a rigid cervix that will be difficult to dilate, Cesarean is the method of choice.

Eclampsia—The same holds true for eclampsia.

Placenta Prævia — In primiparæ, where the cervix is undilated, and there is much hemorrhage and delay is dangerous, then Cesarean is the best method, as it is the quickest.

Premature Separation of the Placenta—Cesarean is indicated because it is the quickest, and sometimes the uterine wall is hemorrhagic.

Heart Disease — If compensation is fully established, a normal delivery may be permitted. However, if decompensation is present, Cesarean should be performed. This includes both myo and endocarditis. If, however, there have been repeated attacks of decompensation, as evidenced by periods of œdema, breathlessness, etc., then Cesarean should be performed, because by this method added strain to the heart is avoided. If a heart shows a tendency on moderate exercise to increase greatly in rate, it is a good plan to make the de-

livery as easy as possible, and Cæsarean is the method to be selected.

Poor Physical Development—Here we have a patient who is anemic, becomes easily exhausted, and is easily under par. Cæsarean is the best.

Poor Nervous Equipment—These women approach labor with fear and trembling, are always ailing, and the storm of labor may make chronic invalids of them. Often by Cæsarean Section we can prevent the development of such conditions.

Elderly Primiparæ—The soft parts are apt to be resistant and the difficulties to the child are increased. Possibly one child is all that can be expected. Cæsarean is the best method.

Malpositions of the Fœtus—Usually these conditions are associated with pelvic reasons that render Cæsarean the method of choice. It may be stated that in primiparæ in which they persist, or in multiparæ where previous labors have been productive of severe maternal injury, or children have been born dead, Cæsarean should be the method.

Post-mortem—Section should be performed if there is opportunity to obtain a living child.

CONTRAINDICATION TO ABDOMINAL CAESAREAN SECTION.

In all conditions, where the indica-

tions for Cæsarean are absolute, there are no contraindications.

In elective Cæsarean Section, various factors enter the field.

Abdominal Cæsarean Section is a major surgical operation. It should never be undertaken except when conditions of surgical cleanliness can be secured and maintained. It is essentially a hospital case, and, if possible, it should be done at a hospital. Under necessity, it can be performed anywhere, but in these instances, which should be few, surgical cleanliness must be insisted upon.

If uterine infection is present, as evidenced by temperature, pus discharge from the uterus, etc., section, should not be done.

No section should be performed for conservation of foetal life whereby maternal life is endangered, except after due explanation has been made, and the choice is made by the mother or people directly interested.

In the presence of acute infective disease, Cæsarean Section should be avoided.

To conclude, Cæsarean Section is the only method in cases where the indications are absolute. In relative conditions it should be the operation of choice, when safety to both mother and child is increased thereby.

NECROLOGY



WILLIAM JERRIS LEWIS

**William Jerris Lewis,
Canaan and Freeport, 1881-1926**

There is no doubt that, owing to his services to his country during the late war when laboring in the general staff hospital at Oglethorpe, Georgia, our lamented comrade from Freeport contracted the heart disease, from which he died at St. Barnabas Hospital, Portland, September 26, 1926. A son of Frederick Garey and Viola Gertrude Lewis, he was born at Westboro, Mass., March 27, 1881. From there he went to the Framingham Academy and High School and the State College of Pharmacy and coming down into Maine he obtained his medical degree at Bowdoin in 1907. His mind being at that time much attracted to the study of myxœdema, his graduating thesis covered that

topic most attractively. Immediately after graduating, he settled in Canaan for three years, and then Dr. Howard, of Freeport, going West for practice, he took up his business in Freeport and remained there until the second year of the great war. He then entered the general staff of the army, served at the Oglethorpe base hospital in Georgia, began there to suffer from an affection of the heart and was retired for that reason for general disability. He resumed his practice in Freeport, but was unable to shake off his heart affection, and despite the best of treatments he left our ranks ere long.

Dr. Lewis was twice married, first, to Miss Estella Malissa Martin, of Augusta, daughter of Winfield Scott and Aurilla Malissa Martin, of that city. She dying, he married, Sept. 28, 1918, Miss Almena Helms, daughter of William and Louisa Biggins Helms, of Hallowell, and by her he is survived, as also by an adopted daughter.

J. A. S.

**Lendall Hall Brown,
North Berwick, 1873-1926**

A practitioner of sterling worth in York County for twenty-eight years, Dr. Brown died in an instant at his home on Sunday, Nov. 14, 1926. He had just returned from some calls and was standing talking with his son and daughter-in-law, when he fell to the floor unconscious, and was soon dead. He had been ill for several months, had spent two previous winters in the South, and was planning to go again as soon as the health of his wife permitted. She had been ill, long previous to her

husband's sudden death, and continues so to this day.

Dr. Brown, the son of Daniel S. and Ellen Burnham Brown, was born in Gorham, Nov. 30, 1873, educated at Gorham High, and obtained his medical degree at Bowdoin at the early age of twenty-two, being unusually talented and fond of books. After postgraduate studies at Harvard, he settled in Harrington for two years, then moved to North Berwick for the remainder of his life. He was interested in the schools at Harrington and at North Berwick and served on the school boards of both towns year after year. He practiced long and successfully in both places. During the war, he served as Captain in the U. S. M. R. Corps, at a base hospital at Oswego, New York.

He married, first, Miss Ethel Boynton, of Harrington, daughter of Isaac and Rebecca Leighton Boynton, and secondly, Miss Grace Knight of North Berwick, who now survives him, with three children from the two marriages.

J. A. S.

**Philip Prescott Lewis,
Gorham, 1870-1926**

The wonderful place which the late Dr. Lewis held in the hearts of the people of Gorham was most handsomely emphasized in the attendance at his funeral services, held in the village two days after his death. The singing by former friends and the eulogies by two of the pastors of the town were an impressive proof of the high esteem in which he was publicly held.

Dr. Lewis was the son of the Rev. Carleton Lewis, who had been a minister in Gorham for years before, and there, Sept. 26, 1870, Dr. Lewis was

born. He ended his career Nov. 30, 1926, in a Portland hospital, where he had been brought for an operation as a last resort.

Although a very busy man, we find little to say about his life except that after education at Berwick Academy, he went to Wisconsin for a business career, but came back to Gorham and obtained his medical degree at Bowdoin in 1898. Settling at once in his native village, he practiced there the remainder of his life and was a man looked up to by all around him. He was successful in his profession, was devoted to his descent from the Mayflower, and was, outside of that, absorbed in his practice. He was married happily to Miss Mary Larrabee McLellan, daughter of Lewis and Mary McLellan, and is survived by her.

J. A. S.

**Arthur Talbot Lincoln,
Dennysville, 1856-1926**

A most charming man personally, very unassuming as a practitioner of medicine, Dr. Lincoln, once a member of our Association, died at the Deaconess Hospital in Boston, September 5, 1926. He was born at Dennysville, September 6, 1856, the son of Thomas and Emma Johnson Lincoln, descendants of General Benjamin Lincoln of Revolutionary fame and a dear friend of Knox and Washington. Dr. Lincoln inherited property through wild lands given to his great-grandfather for his Revolutionary services, so that he never was obliged to labor diligently for a living. He was educated in the village school and by his parents, who were very talented, and from their charge he went on to Amherst, where he was grad-

nated in 1879. He then traveled abroad for a term of years, studying medicine very considerably, and returning to this country he ultimately obtained his degree at the Harvard Medical School in 1889.

Immediately after his graduation, he married Miss Anna Maxwell Brown, of San Francisco, possessor of a beautiful voice, to whom it was a pleasure for their friends to listen. She survives him with a wreath of kindly memories. They traveled abroad considerably, but maintained at the homestead a charming domestic fireside life in Dennysville, where, surrounded by books, pictures and admiring friends, they lived most happily.

Dr. Lincoln was a lover of nature, an out-of-door man. He loved to hunt and fish, and he also painted successfully in oil and water colors. He was a man of vigorous convictions, and, knowing his intellectual powers, it is a regret for his thoughtful friends that he did not give more from his abundant mentality to the advancement of medicine. He does not seem to have written medical papers discoverable of today, but he did write much about local history and family genealogy.

J. A. S.

James Richard Nickerson Smith

Milltown, 1845-1826

Dr. Smith, well known all over Washington County and Eastern Maine and also as far West as Colorado as J. R. N. Smith, the man with three names, died

suddenly in Milltown from cerebral hemorrhage, June 9, 1926, in his 82nd year. As a former member of this Association, but not actively connected with it for the past ten years, we have to note him as one of the oldest graduates of the Bowdoin Medical School, having obtained his diploma at that celebrated institution in 1867, in company with Dr. Frederick S. Thayer, of Waterville, and one or two others still surviving.

Dr. Smith was born at Meddybemps, which some of us know as a village in Eastern Maine, March 18, 1845. He obtained an ordinary country school education, and at the age of seventeen he enlisted in the first Maine Mounted Artillery and served through the Civil War. He then studied medicine and practiced in Troy, Baring and Pembroke until 1883. He then moved to Colorado, on account of his health, but, recovering in a year or so, he came back to Maine and practiced in Milltown and Calais off and on until his death in June. He was a fine specimen of a country doctor, trusted and beloved by those who for as many as fifty-seven years relied upon his skill in medical emergencies and even in trifling illnesses. His advice and opinions were highly considered, and in that part of the state he leaves a handsome reputation.

Personally, I will say, that thirty years ago, when I traveled continuously in Maine in the absence of specialists in different centers of population, I met Dr. Smith often in consultations in Calais, and found him a most agreeable practitioner and a kindly friend.

J. A. S.

Elisha Atwood McCollister
Gray, Lewiston, Mechanic Falls
1852-1926

This former member of our Association was born in Canton, March 25, 1852, the son of Richard and Philena Ludden McCollister, educated at Hebron and Bates, and graduated third in his class at the Bowdoin Medical School in 1882, with a thesis on "Typhoid." He was called at once to New Portland to take care of the late Dr. Ebenezer Humphrey and his patients. In a year or more, he bought out the practice of the late Dr. Newman, of Gray, where he practiced with success for fourteen years, toward the last of it taking postgraduate courses on the eye and ear in New York and in London.

He settled next in Lewiston as a specialist, holding a daily clinic for the eye and ear in St. Mary's Hospital, but keeping in touch with his numerous families living in the towns neighbor-

ing on Lewiston. As an eye surgeon he was proud of a fine result for cataract on a lady of ninety and over, so that she continued with the operated eye to see well into her one hundred and fifth year, when she died.

Finding himself, in 1911, wearied from overwork, Dr. McCollister went out to his sons' farm in Alberta territory and rested there for about four years, ceasing wholly to practice. He returned in 1915, planning to resume his practice in Lewiston, but finding at Mechanic a brother and his wife who both needed constant medical care, he remained in that village until his death, October 11, 1926, leaving behind him the reputation of a hard-working, steady, reliable, modest and self-effacing physician.

He married, in 1881, Miss Lillian Sawyer, of Auburn, daughter of Joseph Plant and Lucy Lapham Sawyer; and is survived by her and three children.

J. A. S.

COUNTY NEWS AND NOTES

Penobscot County Medical Society

The regular monthly meeting of the Penobscot County Medical Society was held at the Bangor House, February 15, 1927.

The minutes of the last meeting were read, and accepted as read.

Dr. Luther A. March, of Bangor, was elected to membership.

Resolutions on the death of Dr. J. H. Murphy, of Dexter, were read and accepted.

Adjourned to dining room and listened to an interesting paper by Dr. Paul N. Jepson, of the Mayo Clinic, on "Post-operative Treatment of Amputation Stumps in Preparation for Early Application of the Artificial Limb." Illustrated by lantern slides.

Forty-one were present, as follows: Dr. Paul N. Jepson, of the Mayo Clinic; Dr. S. N. Marsh, West Enfield; Drs. H. W. Sampson, E. B. Sangor, W. E. Fellows, W. L. Hunt, O. B. Humphrey, H.

C. Scribner, L. A. March, S. S. Silsby, H. D. McNeil, C. E. Thompson, E. S. Merrill, C. J. Hedin, B. L. Bryant, C. S. Philbrick, W. S. Parinton, H. M. Goodwin, E. L. Herlihy, H. J. Hunt, J. D. Clement, H. E. Thompson, J. F. Cox, G. M. Woodcock, Allan Woodcock, D. A. Robinson, C. R. O'Brien, J. B. Thompson, M. W. Emerson, L. J. Wright, A. W. Fellows, A. K. P. Smith,

Mr. Roger Bonsfield, Bangor; Dr. O. R. Emerson, Newport; Dr. H. C. Knowlton, Hampden; Dr. L. H. Smith, Winterport; Drs. C. M. Thomas, F. D. Weymouth, Brewer; Dr. R. N. Marsh, Guilford; Dr. M. C. Madden, Old Town; Dr. J. P. Russell, South Brewer.

H. C. SCRIBNER, M.D.,
Secretary.

NOTICES

\$100,000 Offered for Conquest of Cancer

Two prizes, of \$50,000 each, have been offered by William Lawrence Saunders, of New York, for discoveries of the causation, prevention and cure of cancer. The offer was made on December 15, 1926, and will stand for three years. The donor expects to renew it, if necessary.

Mr. Saunders is chairman of the Board of Directors of the Ingersoll-Rand Company, Director of the Federal Reserve Bank of New York and President of the United Engineering Company.

The decision upon which the awards will be made is to be reached by the American Society for the Control of Cancer and approved by the American Medical Association and the American College of Surgeons.

It is Mr. Saunders' idea that discoveries are not always made by experts,

and that "through the lure of a reward this serious problem might be solved through the genius of a lay mind, by chemists or through unorganized medical sources."

The offer of Mr. Saunders to the American Society for the Control of Cancer has not been formally acted upon by the society, and it is impossible to say at this time what rules other than those proposed by Mr. Saunders will control the decisions. Information as to how persons who wish to present discoveries for consideration should proceed will be announced later.

Mr. Saunders made his offer known through a letter to Dr. C. M. B. Camac, of New York, under date of December 13, 1926, and read by Dr. Camac at a dinner given in the interests of the American Society for the Control of Cancer by President Nicholas Murray Butler, of Columbia University, and Hon. Charles Evans Hughes.

PHYSICIANS' EXCHANGE

Salaried appointments for Class A Physicians in all branches of the medical profession. Let us put you in touch with the best man for your opening. Our nation-wide connections enable us to give superior service. Aznoes National Physicians' Exchange, 30 No. Michigan, Chicago. Established 1896. Member the Chicago Association of Commerce.

Special Courses for Physicians in Treatment of Venereal Disease

Surgeon General Hugh S. Cumming has announced that the U. S. Public Health Service, as a part of its cooperative work with State health departments in the control of venereal diseases, will give special courses of training to physicians, clinicians, and health officers at its venereal disease clinic, Hot Springs, Arkansas.

This clinic, which is operated by the Public Health Service in a new building belonging to the Department of Interior, offers exceptional opportunities for the study of the venereal diseases, especially in clinical and laboratory diagnosis, treatment methods, and clinic management. Here, studies of the many practical and scientific problems connected with venereal disease control are carried on. Last year 3,570 indigent persons were examined at the clinic; 3,064 cases of syphilis and gonorrhea were diagnosed and given a total of 32,315 treatments.

Surgeon General Cumming states that the instruction courses which now are offered will consist of a series of lectures by the Director and the Con-

sulting Specialists attached to the clinic, demonstrations in laboratory and treatment methods, and practical experience in the diagnosis and treatment of syphilis and gonorrhea in various stages through participation in the routine work of the clinic. New classes of not more than ten physicians will form on the first of each month, and the course will continue for a minimum of thirty days. Engraved certificates will be presented by the Public Health Service to those who satisfactorily complete the thirty-day course.

Fees are not charged for this course of instruction. The individual physician, however, will necessarily provide his own travel expense to and from Hot Springs and his living expenses while there.

Interested physicians should write to the local State health officer or to the Surgeon General, U. S. Public Health Service, Washington, D. C., for information or application blanks. Applications should be indorsed by the State health department in which the applicant resides before being submitted to the U. S. Public Health Service.

U. S. PUBLIC HEALTH SERVICE.

The Control of Diphtheria

Notwithstanding the fact that the prevention of diphtheria is engaging the attention of city boards of health and private practitioners throughout the country, and many thousand immunizing treatments have already been given, it will be a long time, we fear, before diphtheria antitoxin goes out of use, or even before the need for it becomes appreciably less than it is now. Much more extended work along the line of prevention will have to be done than has as yet been done, before diphtheria

disappears from the list of children's diseases.

The makers of Diphtheria Antitoxin, therefore, are to be commended for doing their utmost to improve the quality of the antitoxin and the syringe package in which it is put up. Parke, Davis & Co., who began supplying diphtheria antitoxin more than thirty years ago, announce some recent developments in the purification of this product and the concentration of the dose volume. See their advertisement in this issue, "Latest Refinements in Diphtheria Antitoxin."



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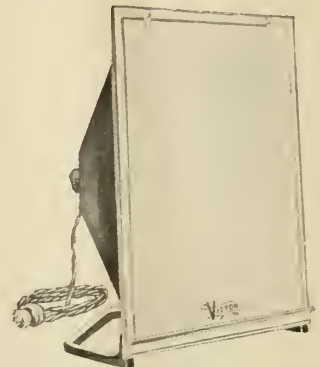
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No. 3

AN EXAMPLE OF THE WAY MAINE'S "HEALTH PLAN" ACTUALLY FUNCTIONS

Reports of Meetings Held in Portland February 10, 1927, by the Three
Major Groups Actively Interested in the Actual Direction and Operation
of the Program to Make Maine "The Healthiest State"—
State Department of Health, Maine Medical Association
and the Maine Public Health Association

Of interest to every physician, every health officer, every public health nurse and all lay health workers in Maine is the report of a series of meetings held in Portland on February 10th.

The grouping together in these conferences of the Executive Committee of the Maine Public Health Association, the Executive Staff of the M. P. H. A., representatives of the State Department of Health, the Council and the committee chairmen of the Maine Medical Association, the Maine Medical Association's Committee on Outside Relations and the secretaries of county medical societies provides a concrete example of the scientific, professional and trained leadership which works for the sane and practical advancement of public health work in this State.

All of the meetings held on this date were routine meetings, that is to say,

there was nothing unusual in the holding of them. The Maine Public Health Association's Staff and Executive Committee meet monthly to discuss the Association's affairs. The Council of the Maine Medical Association and the county Secretaries meet at definite times. But the members of all the groups represented are so closely related each to the other that the management of the JOURNAL thought it would serve a useful purpose to present a report of what was done at the February conferences in this issue of the JOURNAL.

Maine Public Health Association M. P. H. A. STAFF GETS MONTHLY LECTURES.

The entire morning of February 10th was devoted to a monthly staff conference of the Maine Public Health Asso-

ciation's employed personnel. This included the Association's Executive Secretary, Walter D. Thurber; Miss Abbie Buck, who carries on the Association's health education program known as "The Modern Health Crusade" in the schools; Mrs. Alice McGouldrick, a lay organizer of local activities, and the following public health nurses on the M. P. H. A. staff: Mrs. Theresa Anderson, supervisor and in charge of the Bangor office; Miss I. C. Johansen, county supervisor for Franklin county and in charge of the Farmington office; Miss Emily Skorupa, in charge of the Wilton office; Mrs. Alice Bassett, county supervisor and in charge of the Ellsworth office; Mrs. A. T. Holt, in charge of the Flanders Bay office at Winter Harbor; Miss Jessie Wilson, the Somerset county nurse; Miss Edna Avery, the York county nurse and in charge of the Sanford office; Miss Mary Morrison, in charge of the Rumford office, and Miss Clara Russell in charge of the Dexter office. Subjects discussed included the technique of interesting the lay public in constructive health measures, the necessity for adhering to the suggestions of the organized medical profession in the conduct of clinic, procedure for "follow-up" work in the homes, etc. A suggestion for a distinctive uniform for nurses employed by the M. P. H. A. was prepared for presentation to the Executive Committee.

An informal luncheon at noon was attended by members of the Maine Public Health Association's Executive Committee who were present for the afternoon session of the committee and the M. P. H. A. staff members who attended the morning staff meeting.

During the afternoon the M. P. H. A.

staff nurses were given a series of lectures, including one on "Home Care of the Baby," by Dr. Thomas Foster; "Dental Hygiene," by Dr. Alvah Thompson, and "What the State School can do for the Blind," by Mr. Millard Baldwin. Following the lectures the nurses participated in a general discussion of the topics presented, and expressed themselves as delighted at the opportunity to receive the lectures made possible for them at the staff meetings and the opportunity to learn at first hand of the service available through the various state institutions and other official bodies.

PROGRAM FOR 1927

The program of work of the Maine Public Health Association for 1927—largely a continuation of its work during 1926 and previous years with the addition of certain new items called for in the steadily expanding program of the association—as approved by the Association's Executive Committee, is as follows:

1. Continuation of our work in Maine schools designated as "The Modern Health Crusade." New ideas on health education for especial use in the primary grades and in high schools to be developed by Miss Buck in conference with school officials and the Advisory Committee from the Maine Medical Association.

2. Continuation of our clinical work as carried on in the past in co-operation with county medical societies and in conformance with the general policy approved by the Advisory Committee from the Maine Medical Association.

3. Strengthening of our staff nursing services in Penobscot, Franklin, York, Hancock, Somerset and Oxford counties.

4. Co-operation with interested local

groups in developing staff services in Sagadahoc and other counties.

5. Continued co-operation with local and county health organizations affiliated with the state association.

6. Continuation of our program of health education with special emphasis on the importance of regular health examinations for men, women and children.

7. Continued co-operation with the state tuberculosis sanatoria in the matter of follow-up care for discharged tuberculosis cases. Similar co-operation with the Children's Hospital and other similar institutions in need of our service.

8. Continuation of our campaign of education for a more thorough understanding of the importance of the work of the State Department of Health and local Health Boards in the enforcement of state health laws and local health ordinances.

9. Continuation of the special lecture service to our staff and affiliated nurses with special reference to the work of our various sections, viz., our Eye Section, our Mental Hygiene Section, our Tuberculosis Section, etc.

10. Continuation of our special campaigns on Clean Mouths and Better Teeth through the work begun in 1926 in our Modern Health Crusade Service and furthered through the help of our staff and affiliated nurses.

11. Conferences—arranged by our staff nurses—for teaching personal and home hygiene to the mothers and other heads of families in their several communities.

12. Strengthening of our organization work through public meetings, committee meetings, local and county finance campaigns, etc.

13. Co-operation with all groups

interested in the observance of Child Health Day on May 1st.

14. Co-operation with all groups interested in arranging local health meetings, this co-operation to include the supplying of speakers, literature, exhibits, moving pictures, etc.

15. General direction of the 1927 sale of Christmas Health Seals and Health Bonds.

16. Continuation of our work of discovery—through school nursing inspections, clinics, etc.—of such remedial physical defects as defective vision, defective hearing, orthopedic defects, defects of nutrition, etc., and bringing those defects under the care and observance of the family physician.

REPORT OF FEBRUARY MEETING OF THE EXECUTIVE COMMITTEE.

The Executive Committee of the Maine Public Health Association held its regular monthly meeting at 2.00 o'clock. Members present included Mr. Henry Richards, of Gardiner, President; Dr. B. L. Bryant, of Bangor, First Vice-President; Mrs. Harvey Granville, of Kezar Falls; Mrs. J. H. Huddleston, of Orono; Dr. Frank Y. Gilbert, of Portland, and Walter D. Thurber, Executive Secretary. Members of the committee who found it impossible to attend were Dr. E. D. Merrill, of Dover-Foxcroft; Mr. Elliot Rogers, of Kennebunk; Judge Benjamin F. Cleaves, of Portland; Miss Anna Witherle, of Castine; Mrs. E. S. Woodman, of Winthrop; Dr. George E. Young, of Skowhegan; Dr. C. A. Moulton, of Hartland, and Mr. Arthur Tiffin, of Augusta.

The committee accepted the invitation from the Maine Sportsman's Fish and Game Association to name a member of a joint committee to study the question

of the pollution of Maine's inland waters by appointing Mr. Henry Richards, the President, to work with members of the Fish and Game Association, the Associated Industries of Maine and the Maine Publicity Bureau in this study.

It was voted to establish a Heart Section in the Association to function—as the several other sections of the Maine Public Health Association function—in line with a medical policy approved by the Maine Medical Association.

In carrying out its policy of co-operation with the Maine Medical Association and accepting the medical leadership and counsel of the Maine medical group, the committee nominated the following Section chairmen for the ensuing year, subject to the approval of the Maine Medical Association's Committee on Public Relations:

Tuberculosis—Dr. Lester Adams, of Hebron.

Cancer—Dr. H. E. Thompson, of Bangor.

Mental Hygiene—Dr. Carl Hedin, of Bangor.

Eye Section—Dr. Frank Y. Gilbert, of Portland.

Social Hygiene—Dr. Earl Merrill, of Bangor.

Dental Hygiene—Dr. Gerald P. Clifford, of Portland.

Heart—Dr. Eugene Drake, of Portland.

Child Health—Miss Edith Soule, of Augusta.

Modern Health Crusade—Miss Abbie Buck, of Orland.

Public Health Nursing—Mrs. Theresa Anderson, of Bangor.

The 1926 annual audit of the Association's financial affairs was considered and approved. The Auditor's report

showed total receipts during the year of \$52,798.58, with expenditures of \$51,203.27, an increase of 38% over the preceding year. The largest item of expenditure was that of \$20,608.00 for public health nurses. Other items included an advertising and publicity campaign against the careless conchler and sneezer, aid to the Maine Three-Quarter Century Club, which the Association organized a year and a half ago, health education work in schools in every Maine county and nearly every city and town, and the work of the various sections.

It was pointed out in the report that all of the income of the Maine Public Health Association comes from volunteer sources, and that no financial help of any kind is provided by or requested from the state government. Included in the general statement prepared by Auditor Walter Fraser is the following significant paragraph: "In this, my seventh annual audit of your accounts, I again find that your records are neatly and correctly kept and that the high standard of good business methods is being maintained."

A brief summary of the work of the Association for the year 1926 was presented by the Executive Secretary, who announced that the full report would be ready to issue in printed form, as usual, early in the spring. Included in the items presented to the committee in summarized form, were the following:

Health inspections of school children to the number of 11,719 were made during the year by the staff nurses of the Association. Of these, it was found that 8,245 children were suffering from one or more preventable defects. In each case the nurses sent notes home to the parents, listing the defect or defects,

and urging that the child be taken without further delay to the family physician, dentist, oculist or other source of corrective treatment as indicated by the defect.

In the course of their rounds the nurses made the encouraging discovery that 1,347 children had had their physical defects—discovered during 1925—corrected.

In addition to their school work, the nurses made a total of 10,892 visits in 4,953 homes. Some of these calls were for the purpose of personally urging the parents to lose no time in having corrected the defects which the nurse had discovered in the children. Others were nursing visits made under the direction of and in co-operation with the family physician.

Twenty-eight clinics—arranged in co-operation with the county medical societies and attended by 400 patients—were arranged by the M. P. H. A. nurses and seventy conferences with new mothers on baby problems were held—also in co-operation with physicians—and attended by 1,081 new mothers, usually with their babies also present.

The nurses also addressed 149 public meetings of various kinds with health talks, during which they emphasized the importance of regular health examinations by their family physicians and at least semi-annual visits to their family dentist. The audiences at these meetings totalled 3,385.

In addition to the numerous chest clinics, orthopedic clinics, dental clinics, baby conferences and similar activities, one of the major phases of the Association's work was the child health education program carried on in practically every school union in the state. With between 40,000 and 48,000 Maine boys and girls actively enrolled as "Health

Crusaders," Maine, during the past years, as in the year previous, ranked second in the United States for the high rank in health achievement in its schools on the basis of population. This part of the Association's work is a very real partnership with the state and local school authorities.

The Executive Committee of the M. P. H. A. referred the following question to the Maine Medical Association's Committee on Public Relations:

Action on the nominations for the chairmanship of the several sections of the Maine Public Health Association.

Consideration of the proposal to establish within the M. P. H. A. an added section, to be known as the Heart Section.

Approval of a set of "standing orders," for the guidance of county medical societies in preparing county standing orders, or, in the absence of such county medical society action, for the direct guidance of M. P. H. A. nurses.

Decision on what shall be done regarding the selection of medical men for the occasional clinic, such as baby clinics, where the policy on same has not been decided by the State Medical Association.

Compilation of a list of books and leaflets on health to be suggested by our nurses for home reading by heads of families and by study groups.

The Committee appointed Mrs. Theresa Anderson, of Bangor, as staff supervising field nurse for M. P. H. A. nurses, and authorized the executive office to proceed with plans for a contest among members of the Maine Three-Quarter Century Club in the preparation of compositions, articles or essays on health subjects. Adjournment was taken pending decision on the questions referred to the Medical Committee.

Maine Medical Association

COMMITTEE ON PUBLIC RELATIONS.

Meeting called to order at 4.30 P. M. by Dr. B. L. Bryant, of Bangor. Members present were Drs. B. L. Bryant, Bangor; Clarence Kendall, Augusta; L. P. Gerrish, Lisbon; Frank Y. Gilbert, Portland.

Dr. Bryant spoke briefly of the understanding which our committee reached through conference with representatives of some of the large insurance companies as regards disputes between the companies and the attending physician as to bills for medical or surgical services.

On motion, duly seconded, it was voted to approve the selections for Chairman of the various sections of the M. P. H. A., as noted in the report of the meeting of the Executive Committee.

On motion, duly seconded, it was voted to approve the program of the M. P. H. A. for 1927, and urge close co-operation between the M. P. H. A. and the Health Department.

Commissioner Kendall spoke of the campaign now going on for immunization against diphtheria, asking for the close co-operation of the profession with the department, and suggested that a meeting of representatives of the following groups meet in the near future to further discuss the matters, viz., State Department of Health, Maine Medical Association, Maine Public Health Association, Maine Teachers' Association, etc. On motion, duly seconded, it was moved that this committee strongly favored such a conference.

Another question referred from the M. P. H. A. related to the choice of physicians to conduct clinics in a given community. On motion, duly seconded, it was voted that in those communities

where clinics were held for crippled children, tuberculosis, etc., the choice of physicians to conduct such clinics should remain with the county medical association in whatever county the clinic is held.

Owing to the many problems arising throughout the state in the advent of public health nursing in the schools, the time has arrived when the duties of these nurses should be more clearly defined and the scope of their work made clear to the physicians with whom they are seeking co-operation, and the following standing orders for school and public health nurses was submitted by Commissioner Kendall and received the approval of the Committee of Public Relations of the Maine Medical Association.

STANDING ORDERS FOR SCHOOL NURSING.

If a nurse is carrying out a generalized program, including school work, she should get in touch with the Superintendent of Schools at an early date to see whether he desires her services in the schools.

If there is a medical inspector of schools, she should call on him and arrange to assist him, if desired:

1. In examining the children, keeping records, and in the follow-up work in the homes.
2. In watching for any evidence of communicable disease in the school, and, when found, notifying the teacher, school physician and health officer.
3. In detecting and referring to school physician or family physician any evidence of eye, ear, nose or throat trouble, or other physical or mental defects.
4. In rendering first aid in emer-

gencies occurring in schools and seeing that the child is taken either to his home or to the family physician.

5. In reporting to school physician, principal of school or Superintendent of Schools any errors she may detect in regard to light, heat or ventilation in the schools or any unsanitary conditions in school buildings or outbuildings.

6. In following up absentees to make sure they are not suffering with contagious or other illness.

If there is no medical inspector, the nurse may make the vision and hearing tests, weigh and measure, and note condition of the scalp, skin, ears, nose, throat and teeth. She should also note the general nutrition, and any apparent abnormal condition of the child.

The records of the results of these inspections should be recorded on medical inspection cards furnished by the Department of Education, State House, with a note that the inspections were made by the nurse. The nurse should use the State Department of Education notification forms to notify the parents of any abnormal conditions and refer them to their family physician. These cards should be signed by the teacher, not the nurse, and sent home by the child.

The nurse should make a home visit as soon as possible after the notification has been sent, so that she may explain fully the importance of having the physician look at the child and give advice in regard to conditions which she has found.

In no case should the nurse make a diagnosis of a condition or prescribe a remedy for any condition, except in the case of pediculosis. If the local physicians are willing to have her give treatment for pediculosis as it is found, that

might be done without being considered as violating the ethics, because she would have first had standing orders from the physicians in her territory in regard to the extermination of pediculosis. The following directions could be used if the local physicians approve:

"Mix equal parts of kerosene oil and sweet oil. Soak the hair and scalp thoroughly with the mixture. Tie the head in a towel and leave it so one night. Keep away from fire or lighted lamp. Next morning, wash the head with soap and hot water, and remove all traces of the oil. Dry the hair, then soak with hot vinegar. Take a rough towel and rub hair briskly. This will help to loosen the nits. Part and brush with stiff brush and comb with fine tooth comb. The hot vinegar and brisk rubbing should be applied daily until all trace of the nits is removed."

The inspection made by the nurse should include the sanitary conditions of the school, with special attention to ventilation and temperature of the rooms, and facilities for drinking and washing, as well as the condition of the toilets.

When possible the nurse should make a room inspection each week, inspecting the hands, face and teeth for cleanliness, making note of any suspicious symptoms, such as vomiting, headache, sneezing, sore throat or rashes. If there is any kind of an epidemic prevalent, pupils with suspicious skin eruptions or throat conditions which are suspicious of communicable diseases should be excluded.

The nurse, in making school inspection, should use some judgment in reporting abnormal conditions, because there are many degrees of deviation from the normal, and unless judgment is used, she will fail to get the results

which she desires, because she reports conditions which cannot be overcome, or which are too trifling to note. Notices should be sent to parents for the following:

Vision—For 20/40 or less crossed eyes, which should receive immediate attention; eye strain, congestion of eyes, headache; inability to read writing on blackboard from seat; holding book nearer than one foot from the face.

Eyes—For discharge, styes, granulated lids, ingrowing lashes.

Ears—For earache, pain, discharge, defective hearing.

Teeth—For decay, uncleanness (tartar formation), crookedness, marked protrusion of upper teeth, toothache, offensive breath, swollen or receding gums, swollen face.

Nose—For inability to breathe through nose, frequent colds, discharge, nasal voice, dull facial expression.

Throat—For inflammation, patches, tonsils (ragged, spongy, evidence of pus, swollen).

Skin—For eruption, sores, color (pale, sallow), condition (moist, dry), pediculosis.

Skin Disease—Undiagnosed. Refer to physician and health officer.

No standing orders for all nurses can be given in regard to the treatment of scabies and impetigo, two most common contagious skin diseases found in schools, but each nurse should get these standing orders from the physicians in the towns in which she is doing school work.

Posture—For unequal height of shoulders, lameness, drooping or contracted chest, protruding abdomen, spinal curvature, slouchy, shuffling gait, marked toeing out.

Glands—For obvious swellings on front of sides of neck.

Other abnormalities.

Vaccination—All parents should be urged to have their children vaccinated against smallpox.

Diphtheria—The State Department of Health suggests that parents be advised that all children under ten years of age shall be given toxin-antitoxin to immunize them against diphtheria. A small proportion of these children may have natural immunity.

We are seeking to put over this information, whether toxin-antitoxin is used or not. Antitoxin must be given early and in large quantities, preferably single doses, for treatment, also for the protection of those who have been exposed. The antitoxin only protects the contact for two weeks, but should be given to every exposed case. The toxin-antitoxin does not protect the child to whom it is given until six months have elapsed, so that in case of illness or exposure, the treatment is the same as if they had not had toxin-antitoxin.

The first dose of toxin-antitoxin will serve as a Schick test for these in this way: At the end of five days a reddened areola at the site of inoculation about two inches in diameter will be present if the child is susceptible at the time of this examination. He should have two doses if the test is positive. If it is not positive, the child being immune, the other two inoculations need not be given.

At the end of six months, if desired, the Schick test may be given to determine if the child has immunity from toxin-antitoxin. By not bothering with the Schick test, you save getting the children together for the Schick test,

save the doctor's time, and also save the children from the annoyance of one prick of the needle.

From ten years of age to twenty-five the susceptibility diminishes, and as a matter of expense solely, the Schick test may be given before the toxin-antitoxin, this because the cost of the toxin-antitoxin is greater than that of the Schick solution.

Scarlet Fever — With reference to scarlet fever, the attitude of the State Department of Health is that there is definite value in the use of scarlet fever serum for treatment.

For immunization, immediate or prolonged, the attitude is that it is not a preventive, but we feel that if the physician is inclined to use these protective doses for scarlet fever, he should be encouraged in so doing, in order that we may have accumulated testimony as to its value. We do not feel that it has been demonstrated as more than a fifty-fifty proportion. This is true also for skin tests.

Cultures — In suspicious cases cultures should be taken and the child excluded from school until a diagnosis has been made. The cultures should be given immediately to the health officer for examination, and the family urged to see the family physician at once.

The nurse should endeavor to have the state law in regard to the return of children to school after illness observed: "The superintending school committee shall cause to be referred to a school physician for examination and diagnosis every child returning to a school without a certificate from the board of health or family physician after absence on account of illness, or whenever in the judgment of the teacher, the circumstances of the absence were such as to require such a certificate . . ."

HEALTH TEACHING.

The nurse should confer with teachers in regard to health program, and, when desired, the nurse should give talks to pupils. These talks should be progressive and suited to the grade in which each is given. Suitable helps for graded teaching are available.

RECORDS.

Records should be kept in the school building when practicable, but if the school work is being carried on by the county nurse, where it would require duplicate cards to carry on the work satisfactorily, it is advised that the nurse get permission from the Superintendent of Schools to keep the records in her office, returning a record of defects to the teachers, so that they may have it for ready reference when needed.

CLASSES.

With the approval of the School Board, a nurse may conduct home hygiene classes, infant hygiene classes, or other health classes.

HEALTH DRILLS.

It is recommended that the nurse conduct toothbrush, handkerchief, hand-washing drills, and that she assist in the work of any dental clinic when necessary; also that she encourage and assist teachers in their Crusade work.

CLINICS.

Corrective work should be referred to the family physician. If the physicians desire a clinic in order to handle a larger number of patients in a short time, the nurse can assist in arranging for the clinic. No child should be taken to or advised to attend a clinic without the consent of the family physician.

LITERATURE.

A supply of state literature should always be available, to be used as foundations for talks in schools and for distribution when necessary, to call special attention to the care of certain diseases.

EQUIPMENT.

For school work a certain amount of equipment is necessary, and the following list is the minimum requirement: Scales with measuring rod, gauze, tongue depressors, basin, thermometer, bandages, paper of needles, pins, adhesive tape, collodion, scissors, iodine, tincture green soap.

STANDING ORDERS FOR PUBLIC HEALTH NURSES.

When a public health nurse begins her service, her first contact should be with the local health officer, then with the physicians and the district health officer. Other contacts which will be helpful in the work should be made as rapidly as possible.

In making her contacts with the physicians, the nurse should explain carefully the type of work which is to be undertaken. She should let the physician know that work will be carried on in co-operation with him, and that no patient will be cared for without the approval of, and orders from, the family physician.

It is also understood that no nurse will recommend a physician to a patient, or recommend any change in physicians. If patient does not know any physician, a list of all physicians in locality may be given from which to make choice.

The nurse should carefully explain to the physician her technique in caring for different types of patients, and inform herself whether or not each physician

approves her method of carrying out this technique. If any physician objects to the methods employed, the nurse should obtain his instructions, and should, under no consideration, carry out her work in a manner disapproved of by the physician.

A request for diagnosis and instructions may be written on Association paper, signed and left for the physician, but a direct communication is more satisfactory. It would be unwise to leave certain diagnoses in writing in patient's home, and equally bad to give others over the telephone, therefore the nurse should not ask this if she has reason to believe that the physician will refuse a diagnosis. She should try to see him in his office and ask for the diagnosis, explaining that there are three reasons for desiring careful diagnoses:

1. To enable the nurse to give as much and as careful nursing as is indicated.
2. To protect the nurse from the danger of infection to herself and others.
3. To make it possible to learn, by carefully kept statistics, the kind of cases under the nurse's care and the approximate amount of nursing service required by the different types of cases.

In conferring with the physicians, the nurse should secure information in regard to standing orders. As a guide, the following orders have been prepared to be used only when no orders have been left for the nurse, or no physician is in attendance, or where the nurse must give emergency aid. If, after reviewing these standing orders, the physician does not approve of them, the nurse should make a written note of his objections and carry out only such things as he would approve in each particular case.

If a nurse is called to a patient needing medical attention, she should instruct the family to summon their family physician before her next visit, and no nurse should give nursing care to a patient at any subsequent visit without having had instructions from the physician, except with prenatal cases. In this case she should be permitted to follow the case, providing that she, at each visit, uses all means to get the patient under the care of a physician. If these cases were not visited, the patient might not have a physician and would miss much needed help.

FOR ALL NEW PATIENTS.

Cleansing bath, P. R. N. Instruction in hygiene of the sick room, with special emphasis on good ventilation, cleanliness, proper disposal of discharges, and diet suited to the patient's condition and needs.

FOR PATIENT WITH FEVER, UNDIAGNOSED.

Put patient to bed. Urge importance of quiet and rest. General isolation routine if communicable disease is suspected. Liquid diet. Plenty of water. Sponge for temperature of 102 to 105. If patient is suffering from abdominal pain, nothing is to be given by mouth, until patient has been seen by doctor.

FOR INFANTS AND CHILDREN, WITH FEVER, UNDIAGNOSED.

Put to bed. Isolate. Give boiled water. Normal salt colon irrigation if history suggests constipation. Urge calling doctor if temperature does not drop after irrigation.

INFANTILE DIARRHEA.

No food. Boiled water for 24 hours. Rest.

INFANTILE CONVULSIONS.

Mustard bath (1 tablespoonful mustard dissolved in tepid water to 1 gallon of water 105 degrees F). Diet, boiled water. Normal saline irrigation. Ice to head. Urge immediate attendance of physician.

BURNS.

Remove clothing if not attached to skin. If adherent, cut away as much as possible and apply normal salt or boric solution dressings while waiting for physician. In case of shock, keep quiet, recumbent and warm. If burn is severe and physician cannot be reached, get patient into hospital as soon as possible.

COLDS.

Liquid diet. For adults, plenty of hot water to drink.

INFECTIOUS DISEASES.

Isolate. Nurse should visit only with permission of health officer. Visit should be made at end of day when all other patients have been visited. Gown should be worn and left in house. All suspicious cases should be referred to local health authorities at once, if medical attendance is refused or cannot immediately be secured. Boric solution for eyes and nostrils, P. R. N. Vaseline or cold cream for lips and nose, P. R. N. Oil rub, P. R. N., for all desquamating cases. Teach proper disposal of body discharges. Liquid diet. Sponge for R. T. 102.5.

FOR INFLAMED OR DISCHARGING EYES.

Immediately refer to physician inflamed or swollen or discharging eyes, especially in newborn.

FOR DISCHARGING EARS.

Cleanse the outer ear with moist boric solution swabs. Dry thoroughly. Do

Not Irrigate. Emphasize need of prompt medical attention.

DRESSINGS, MINOR. (Cuts, Bruises, Infected Fingers, Scratches.)

Apply hot borie or saline packs. Advise medical attention.

PLEURISY.

Apply tight binder to chest. Report to physician.

PNEUMONIA.

Fresh air treatment if possible. Sponge for R. T. 102.5. Liquid diet. Teach family to keep patient absolutely quiet in bed until doctor orders otherwise, because of the strain the heart is under. Show them that the patient may have fresh air and yet be protected from drafts, and that the temperature of the room should not be over 60, unless otherwise ordered. Teach the use of the mouth wash, and how to note the character and amount of sputum, and how to dispose of the waste, especially the sputum.

SORE THROATS.

In the absence of medical attention, the nurse may take a throat culture for examination at the city or state laboratory. Liquid diet. Urge fluids. Isolate if possible until physician sees case.

TYPHOID FEVER.

Sponge for R. T. 102.5. Milk diet. Emphasize need of seceus, fresh air, cold drinking water (boiled if possible), disinfection of stools.

TUBERCULOSIS

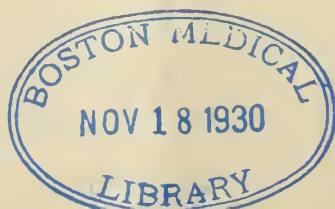
Instruct family in care of expectoration. Sputum cups and crepe paper napkins with paper boxes are generally regarded as the most useful methods of caring for sputum. The expense of each is about the same, though the latter

combination is capable of being more conveniently carried in a nurse's kit. These should be used in all respiratory diseases where infection is liable to be carried by the spray or droplet method, in the same manner as it presumably occurs in transplanting tubercle bacilli to another individual. A small paper bag pinned to the bed is to be used as a receptacle for the napkin. Even in a patient without sputum but with cough, the napkin is sanitary and should be used to cover the mouth during the acts of sneezing, coughing, and violent laughing. It is to be remembered that after this is done, the napkin should be correctly folded in one's pocket, that there should result no infection of the latter. Otherwise, with a continuous movement to and from one's pocket, it is easily seen that there is considerable opportunity for infecting every object in the room which a patient might handle.

The best we can do is to keep this kind of infection down to the minimum. It is for this reason that children especially should be prohibited from the sick room.

Whenever a patient raises a large quantity of sputum, paper napkins are inadequate, and the sputum cup is more convenient and cheaper in the end. In both cases, burning is the easiest and surest method of destruction. In the case of the cup, before burning it should be filled with sawdust or paper, and the easiest way to extract the filler will be with a hemostat or forceps. If accidentally some may be deposited on the floor, wipe it up with antiseptic, 1 to 20 carbolic, and cover with same for 15 minutes.

Rooms should have two windows, if possible, and all the sun possible. If damp, they should be thoroughly dried out with heat, then opened to the outside



air. Dryness of air has much to do with starting a cold, and is produced by artificial heat. On the contrary, outside air will preserve a more equal humidity, providing windows and doors are opened.

Keep the patient changing position frequently during the day while in bed. However, at night he should be permitted to sleep on the side that will provide him with the most freedom from cough, which means rest.

If patient is hoarse, have him avoid talking. Accustom patient to as high a degree of cold as possible, but, in doing so, the patient's complaints as to chilliness and discomfort should be recognized. If necessary, have him wear a light undershirt under nightgown.

Ordinarily the majority of patients can drink plenty of water.

Keep an incipient case in bed if temperature exceeds normal, 98.6, at 4 P. M.; put an advanced case in bed if it exceeds 99.4.

Label dishes and eating utensils, towels and handkerchiefs. Patients should own a thermometer if possible, kept in small test tube, though a certain excitable temperament might prohibit this.

If a patient cannot be moved to a porch conveniently for several hours a day, it is a good practice to bundle him up in a chair in his room, with all outside doors and windows open, for a corresponding amount of time.

ULCERS. (Chronic.)

Cleanse with normal salt or boric solution. Apply hot dressings and firm bandage.

OBSTETRICAL CASES. (Prenatal Care.)

If no physician has been consulted, urge patient to do this without delay.

Take temperature, pulse and respiration.

Learn patient's exact physical condition. Give advice regarding personal hygiene, diet, exercise and clothing, keeping in mind the instructions given later under "Observe and Inquire About."

If no outfit is ready, suggest good patterns. The State Department of Health can assist in this matter. Explain the use and idea of the patterns and advise as to the kind and amount of material to buy.

Try to see room which has been selected for the confinement, and if it is not a satisfactory one, urge mother to select another whenever possible.

During the entire visit there should be an attitude of cheerfulness and friendliness and the nurse should constantly reassure the expectant mother.

A prenatal visit is just as important as a nursing visit. Remember that good results are dependent upon the teaching ability and attitude of the individual nurse.

Observe and Inquire About, and report upon abnormal conditions.

1. General condition and appearance.

- (a) Is her color good?
- (b) Does she appear weak?
- (c) Has she dyspnea?
- (d) Has she pain in her back?
- (e) Is she normally cheerful or unduly apprehensive?

2. Swelling of face, hands, feet; varicose veins of legs; hemorrhoids. Teach necessity for rest and sleep.

3. Nausea and vomiting; "heartburn" (remedy, oil or cream, one-half hour before eating).

4. Headache; toothache. Teach how to care for mouth and teeth.

5. Vision. Note any dizziness, blurring, spots or flakes before eyes.
6. Vaginal discharge—leucorrhoea; bloody discharge.
7. Urine. Note amount (normal quantity, one quart daily; sudden reduction in amount dangerous); frequency, burning, or pain at micturition. Obtain specimen for physician when possible and either carry it to doctor or send by some one upon whom you can rely.
8. Bowels. Note condition of constipation or flatulency. Consult the doctor, and, with his permission, advise if necessary.
9. Breast and nipples. Note condition—breasts heavy; nipples clean and dry, cracked or inverted. Instruct mother how to care for breasts. Question as to nursing of former children. If breast fed, how long nursed? If bottle fed, why? Urge breast feeding, and how to prepare for it.
10. Fetus. Has fetus been active since fifth month? If activity ceases, see that this is reported to doctor.
11. Instruct mother about the necessity of using prophylactic for eyes.
12. Instruct mother about necessity of birth registration.

OBSTETRICAL CASES. (Post Partum.)

For the mother: Cleansing bath. Change pads. Local cleansing with $1\frac{1}{2}\%$ lysol solution. Abdominal binder. Leave in dry, warm bed.

For the Baby: Oil and bathe. Keep warm. Premature babies, oil but do not bathe. Call attention of physician,

if necessary, to prophylactics, for eyes. Dry sterile dressing for cord.

BABY CONFERENCES.

Baby conferences should be in charge of a physician whenever possible. In carrying on a conference of any type with a physician in charge it must be definitely understood by the attending physician and other physicians in the community, that examinations of patients may be made but no recommendation should be made directly to the patient, as the patient will be referred to her family physician, except in regard to supervision of feeding for regular attendant at conferences.

The recommendations of the conference physician shall be sent to the family physician in writing, then the patient visiting her family physician will be advised by him in regard to necessary treatments.

In this way only can the family physician be assured that his patients are not being taken away from him and referred to other sources without his knowledge.

If no physician is in charge, the nurse may weigh, measure, and give the mother instructions in regard to personal hygiene. No change will be made in formulas or treatment recommended by the nurse, but the mother should be urged to report at once to the family physician for necessary advice. The nurse in the meantime should also report any condition which she feels needs attention.

HOME VISITS TO BABIES.

Nurses should note the condition of the home, physical condition of other members of the family, as well as the condition of the baby in regard to the following:

1. Cleanliness.
2. Head.
 - (a) Cradle cap. If cradle cap is present, advise rubbing warm oil on scalp at night and lifting off crusts in morning with fine comb.
 - (b) Sweating—whether it is caused by being too warmly clothed or for some other physical reason.
 - (c) Fontanelles.
3. Eyes—for inflamed condition or discharge.
4. Ears—for evidence of pain or discharge.
5. Nose—note any discharge and character of discharge. Snuffles, if chronic.
6. Throat—if ill., note condition of tonsils.
7. Mouth—note any malformation, thrush, swelling or blueness of gums.
8. Teeth—note order of their appearance, and their condition. Give instructions in regard to care.
9. Skin—note condition of skin, dryness, scaling, looseness, rash.
10. Buttocks—note any irritation and inquire cause, whether due to improper care of diapers, concentrated urine; or result of irritated stools.
11. Umbilicus—note condition and report to doctor any moisture, protrusion, granulation tissue. If strap has been ordered by physician, reapply until physician orders otherwise. In strapping umbilicus have the skin free from moisture or discharge. Apply a piece of adhesive tape six by two inches. Attach one end of strip well over to one side. Reduce

hernia with forefinger. Pull strip tight across abdomen, sliding out forefinger as second end is attached to opposite side.

FEEDING.

If breast fed, the nurse should encourage the mother to continue breast feeding, advise her in regard to diet, care of the breasts, and methods of promoting milk.

Meeting adjourned at 5.45 P. M.

FRANK Y. GILBERT,
Acting Secretary.

Meeting of the Officers and Council of the Maine Medical Association and the Secretaries of the County Medical Societies, Portland, February 10th, at 8.00 P. M.

Following a banquet at the Congress Square Hotel, the meeting was called to order by Dr. L. P. Gerrish, President of the Maine Medical Association, who spoke of the keen interest shown in these meetings and the great value of conferences of this kind. He then called on the following physicians to report various activities.

Dr. B. L. Bryant, Secretary of the Maine Medical Association, spoke of the action taken last June by the State Association giving the Committee of Outside Relations power to serve in an advisory capacity to the insurance companies and the physicians in those cases where there is a controversy as to the value of the service rendered. The committee in conference with representatives of the leading insurance companies offered their services and it is now up to them. He then reviewed

the actions taken by the Committee on Public Relations at their afternoon session, emphasizing the earnest co-operation of the Maine Medical Association with the State Department of Health and the M. P. H. A. as shown in the report of the committee meeting earlier in this issue.

The following secretaries reported their activities during the past year and outlined their policies for future meetings.

Androscoggin—Dr. H. Sprince, Lewiston.

Aroostook—Dr. J. H. Potter, Houlton.

Cumberland—Dr. George Cummings, Portland.

Franklin—Dr. George Pratt, Farmington.

Hancock—Ex-President Dr. J. D. Phillips, Southwest Harbor.

Knox—(Secretary not present) Dr. F. F. Brown, Vinalhaven.

Penobscot—(Secretary not present) Dr. A. K. P. Smith, Bangor.

For the Councilors:

First District—Dr. S. P. Warren was unable to attend, owing to illness. On motion, duly seconded, the Secretary was instructed to convey to Dr. Warren our sincere regrets for his inability to be with us and wish him a speedy recovery to health.

Second District—Dr. John Sturgis, Auburn, reported progress and a keen interest in their meetings. He had attended meetings of the societies in his district and found them both interesting and instructive to the members present.

Dr. Frank Mitchell, State Senator from Houlton, spoke in a very interesting manner as regards the legislative problems before the present session which interested the medical profession, emphasizing the co-operative spirit of his fellow legislators in securing legislation beneficial to the people and stopping that which is detrimental.

The Senator's success is not only due to a pleasing personality and a convincing manner, but a knowledge of humanity. Once a man sees things in a true light, you do not have to drive him, so he sits down with his opponent and shows him wherein certain things are good and others are bad. This year we have three physicians in the Senate and three in the House, and their whole policy has been that of education and co-operation with their fellow legislators, the public and the profession. These men have made a sacrifice, and are doing much-needed work, and we trust they can see their way to continue and encourage other medical men to take an interest in the legislative work.

Dr. Frank Y. Gilbert spoke as follows on the newly formed New England Medical Council:

Following the suggestion of Dr. D. W. Parker, President of the New Hampshire Medical Society, Dr. James S. Stone, President of the Massachusetts Medical Society, invited the Presidents, Secretaries and editors of the six New England medical societies to meet at the Harvard Club, Boston, November 17, 1926, for the purpose of organizing a New England Medical Council. Maine, New Hampshire, Vermont, Massachu-

setts and Rhode Island were fully represented, and a temporary organization, with Dr. Parker President, and Dr. Bowers Secretary, was formed. Medical defenses, insurance, licensure, contract practice, the nurse in relation to the medical profession, etc., were fully discussed. The problems which were considered to be wholly state problems were soon recognized as New England problems, and even national ones, and the ultimate solution of one or all must be found in the broader field of activity. The second meeting of the Council was held in February, and, by invitation, Dr. Stone discussed in a general way the possibility of the insurance field for the profession, and Dr. Bryant outlined Maine's plan for medical defense, which has worked so satisfactorily in our state. Dr. Ricker gave us the Vermont plan, and a general discussion followed. All New England States were represented.

The New England Medical Council has been adopted by Massachusetts, New Hampshire and Rhode Island. Vermont, Connecticut and Maine will act at their annual meetings. The temporary organization calls for five representatives from each state, of which the President and Secretary shall be members, and up to the present time Maine has been represented by L. P. Gerrish, President, B. L. Bryant, Secretary, and F. Y. Gilbert. At the June meeting, Maine will vote on the question of joining the Medical Council and designate the other three members who shall represent Maine in the Council. In view of the fact that all problems

confronting Maine also confront New Hampshire, Vermont and all New England States, it is a far-sighted plan to discuss these problems as New England problems, and at the same time have our delegates bear in mind the national views. The ultimate results are bound to be far-reaching and of great value to all New England States.

Dr. E. E. Holt, Jr., chairman of the Entertainment Committee of the Maine Medical Association, outlined briefly the program for the state meeting to be held in Portland in June. It is hoped to bring one of the Mayo brothers from Rochester, N. Y., whereas other speakers of note are expected.

Dr. Edwin Gehring, President of the Cumberland County Medical Society, spoke of the meeting of the College of Physicians to be held in Cleveland in March, and urged those present to attend.

Dr. George Coombs, of Augusta, spoke of the work of the Venereal Committee and of the State Department of Health in their effort to combat venereal disease, and asked for close co-operation of the medical profession.

Dr. Clarence Kendall, Commissioner of Health, spoke of the need of co-operation of the medical profession with the state and local health departments in securing necessary health laws and the proper enforcement of the present laws. He spoke of the campaign to eliminate infectious disease, and more particularly diphtheria, through use of the Schick test and immunization treatment. In reply to the question of Dr. Mortimer Warren, Portland, as to

whether he felt that it was right for the state laboratory to do laboratory work gratis for patients capable of paying their bills, Dr. Kendall stated that he endeavored to discourage physicians sending in cultures and specimens from pay patients, but to send them to private laboratories, where they rightly belong.

A general discussion followed. The secretaries were asked to carry back to their county societies a digest of this meeting.

Adjourned.

Those present were: Drs. L. P. Gerrish, President, Lisbon Falls; J. D. Phillips, Ex-President, Southwest Harbor; B. L. Bryant, Secretary, Bangor; W. J. Renwick, John Sturgis, Auburn; George Coombs, C. E. Kendall, Augusta; A. K. L. Smith, Bangor; George Pratt, Farmington; F. W. Mitchell, John Potter, F. E. Dickson, Houlton; B. W. Russell, E. V. Call, H. Sprince, Lewiston; E. W. Gehring, T. A. Foster, E. E. Holt, Jr., Mortimer Warren-George Cummings, F. Y. Gilbert, Portland; F. F. Brown, Vinalhaven.

NOTICES

American Board of Otolaryngology

The following examination dates have been assigned by the American Board of Otolaryngology:

Washington, D. C., Episcopal Eye, Ear and Throat Hospital, Monday, May 16, 1927, at 9.00 o'clock.

Spokane, Washington, Saturday, June 4, 1927, at 9.00 o'clock.

United States Public Health Service

Examinations of candidates for entrance into the Regular Corps of the U. S. Public Health Service will be held at the following named places on the dates specified:

At Washington, D. C., May 2, 1927.

At Chicago, Ill., May 2, 1927.

At New Orleans, La., May 2, 1927.

At San Francisco, Cal., May 2, 1927.

Candidates must be not less than twenty-three nor more than thirty-two years of age, and they must have been graduated in medicine at some reputable medical college, and have had one year's hospital experience or two years' professional practice. They must pass satisfactorily, oral, written and clinical tests before a board of medical officers and undergo a physical examination.

Successful candidates will be recommended for appointment by the President, with the advice and consent of the Senate.

Requests for information or permission to take this examination should be addressed to the Surgeon General, U. S. Public Health Service, Washington, D. C.

H. S. CUMMINGS,
Surgeon General.

JOURNAL OF THE MAINE MEDICAL ASSOCIATION

Dr. Frank Y. Gilbert, 148 Park St., Portland, Editor-in-Chief

Dr. James A. Spalding, Portland, Necrologist

Dr. Bertram L. Bryant, Bangor, Secretary Maine Medical Association

Dr. Stanley P. Warren, Portland, Chairman, Board of Councilors

Dr. Clarence Kendall, Augusta, State Commissioner of Health

Dr. C. A. Moulton, Hartland, Chairman Committee on Public Relations

Dr. E. H. Risley, Waterville, Chairman Cancer Committee

Dr. Thomas A. Foster, Portland, Chairman Scientific Committee

EDITORIAL COMMENT

Health Work for Maine

The MAINE MEDICAL JOURNAL, following the custom established several years ago, is devoting this entire issue to the general subject of public health. Without doubt Maine is leading the entire country in the development of rational public health work through the co-operation and advice of the Maine Medical Association. Maine was the first state in the Union to bring about a definite alignment in which the organized medical profession, as represented by the state medical society, is brought into actual working connection with the volunteer health forces, as represented in Maine by the Maine Public Health Association, and the official agency represented by the State Department of Health.

Maine physicians are coming to realize the important fact that the medical policies of the Maine Public Health Association are sanely and constructively supervised by our State Medical Association committee. Furthermore, the medical profession is well represented on the Executive Committee of the Public Health Association.

The State Health Commissioner is a member of the Maine Medical Association's Committee on Public Relations, and this committee also includes medical members of the Public Health Association's Executive Committee.

Included in this issue of the JOURNAL are reports of several conferences of these three groups held on a single day in Portland. These reports will serve to illustrate how the co-operative plan for the sane development of public health measures works out in this state. This is another of the practical results growing out of the building of "The Health Plan for Maine."

With the development of better and better team work between the three major groups interested in health work—the State Department of Health, charged with the enforcement of health laws and ordinances, the operation of state laboratories, the compilation of vital statistics, etc., the scientific group, as represented by the Maine Medical Association, and the volunteer or lay group engaged in educational, organization and health promotion activities, as represented by the Maine Public

Health Association—Maine is being cited as a leader by forward-thinking medical men, by health educators and health administrators throughout the United States.

The movement for regular health examinations, the arousing of the public to the need for early consultation with and early treatment by their physicians, started in Maine. This is one of the most constructive health measures which has been launched in recent years. As physicians, none of us like

to lose a case. How often do we say to a patient, "Why didn't you come in sooner?" We accept as our duty the task of prolonging human life as long as we can. The campaign for regular health examinations helps us to do it by bringing to our attention the early ease of beginning illness or of correctable physical defect in time for us to do our best work on behalf of the families which rely upon us as physicians for health protection and advice.

NECROLOGY

Joseph Harvey Murphy, Dexter, 1866-1927

A leader in the profession, and known throughout Maine as an esteemed officer of the World War, Dr. Murphy, a prominent member of our Association practicing in Dexter, died in that town January 12, 1927. The immediate cause of his death was myocarditis, with toxemia.

He was born in Andover, New Brunswick, May 4, 1866, the son of George Will and Nancy Britt Murphy. was educated in the common schools, and in his youth became a clerk in a drug business in Calais and Auburn. During the last three years of his business career, he studied medicine and obtained his degree at the Bowdoin Medical School in 1891.

Immediately after graduating, he practiced medicine in Fort Fairfield for some years, then removed to St. Albans, and ultimately began practice in Dexter, where he spent successfully the last twenty-five years of his busy life. He enlisted early in the great war,



DR. JOSEPH H. MURPHY

examined recruits for the Second Maine Infantry, and in 1916 was appointed Lieutenant in the Maine Medical Re-

serve Corps. He served overseas in the end of 1917-19, and was cited for gallantry, under fire, by General O'Rvan, of the First Division. Returning home again, he served at Camp Wadsworth as Captain, and was honorably discharged in April, 1919, at Camp Devens with the rank of Major in the Medical Reserve Corps, a handsome record for his name and family. Major Murphy was also of great service with the Relief Corps during the Halifax disaster, as has been previously annotated and commented upon in this JOURNAL.

Dr. Murphy married, in 1895, Miss Annie J. Winslow, of Dexter, and is survived by her, a daughter, and three grandchildren.

The long experience which Dr. Murphy had in the study and dispensing of medicines was of untold value to him in his active practice, putting him, as we may say, at the forefront of truly medical practitioners amongst the members of our Association.

We are glad to offer an excellent likeness of our esteemed comrade, who has gone along, all too early.

J. A. S.

COUNTY NEWS AND NOTES

Penobscot County Medical Society

The regular monthly meeting of Penobscot County Medical Society was held at the Bangor House, March 15, 1927.

Minutes of last meeting read and accepted as read.

Resignation of Dr. L. H. Blanchard, formerly of Pittsfield, Me., accepted.

Adjourned to dining room, and after dinner listened to an excellent paper on "Syphilis of the Central Nervous System," by Dr. Maxwell E. McDonald, of Boston, Mass.

Dr. Albert W. Fellows, of Bangor, read a case history in reference to Dr. McDonald's paper, which caused much discussion.

Thirty-five present as follows: Drs. M. E. McDonald, Boston; S. N. Marsh, West Enfield; A. W. Fellows, B. L. Bryant, E. E. Brown, H. C. Scribner, H. W. Johnson, H. E. Thompson, J. L. Johnson, J. B. Thompson, E. L. Herlihy, W. S. Purinton, H. D. McNeil, H. L. Robinson, W. L. Hunt, J. D. Clement, H. J. Hunt, C. B. Popplestone, C.

J. Hedin, C. S. Philbrick, A. E. Small, M. C. Moulton, C. R. O'Brien, E. W. Russell, L. S. Mason, A. K. P. Smith, D. A. Robinson, Bangor; C. M. Thomas, F. D. Weymouth, Brewer; R. H. Marsh, Guilford; H. C. Knowlton, Hampden; H. G. McKay, Howland; M. C. Madden, Old Town; W. C. Hall, Orono; and Mr. Roger Bousfield, Bangor.

H. C. SCRIBNER, M. D.

Secretary.

Personal Notes

Dr. Forest C. Small and Dr. George C. Precourt, members of our Association, have been elected to another term of office as mayor of Belfast and Biddeford respectively.

We regret to announce the death of our most genial member and friend, Dr. Traynor, of Biddeford, medical examiner for York County, on Tuesday, March 15, at the early age of a little over fifty.

NEW AND NON-OFFICIAL REMEDIES

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Glaseptic Ampoules Bismuth Salicylate in Oil—P., D. & Co., 1 c. c. Each ampoule contains 1 c. c. of a suspension of bismuth salicylate U. S. P. (New and Non-Official Remedies, 1926, p. 97), 0.13 gm. (2 grains), in a liquid composed of camphor, 10 per cent.; creosote, 10 per cent.; olive oil, 80 per cent.

Non-Proprietary Articles:

Ricinoleated Scarlet Fever Antigen.

NOTICES

The American College of Physicians

The Eleventh Annual Clinical Session of the American College of Physicians, held this year at Cleveland, Ohio, from February 21 to 25, inclusive, will long be recalled, by those fortunate enough to attend, as a remarkable experience in medical education. Between 1500 and 1600 physicians, coming from every state in the Union, from all parts of Canada, from Hawaii and from England, had, for five days, a veritable "feast of reason and flow of soul," provided by papers, touching upon every conceivable medical topic, and by clinics, embracing a wide va-

riety of conditions, conducted by Cleveland clinicians in true scientific spirit and with courtesy personified.

Throughout, the session was pervaded by the spirit of scientific inquiry. This same spirit has characterized all other activities of the College, which is not an organization in competition with any other scientific body, but one whose function is to search for truth, and, incidentally, to learn ways and means whereby medical education, hospital organization, and the standard of medical practice may be improved. In short, the physical well-being of humanity is its concern.

Its Governing Boards impressed with the truth of the statement that intelligent therapeutics must be based upon a knowledge of pathology, respectfully urge enlightened persons everywhere to exert their utmost influence to combat the all too prevalent sentiment against necropsies. When I tell you that in one hospital in a western state the percentage of autopsies last year rose to sixty-five, you will begin to realize what an intensive program of education medical men and progressive laymen in Maine will have to inaugurate if we are to contribute our share toward an understanding of disease, its prevention and cure.

To borrow an expression from our friends the cardiologists, the "preponderance" of discussion in hospital staff meetings hitherto has been surgical. By emphasizing the importance of medicine *per se* and by stimulating an interest in purely medical problems, the College hopes that ere long medicine may occupy a place commensurate with its usefulness in the deliberations of all up-to-date hospital staffs. To effect the foregoing, members of the College are united.

As evidence of the concern being manifested throughout North America in these and kindred problems, it may be of interest to learn that during the past year one hundred and thirty-four were elected to Fellowship and thirty-one to Associateship.

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*INDICATIONS AND TECHNIQUE OF FORCEPS OPERATING AND INDICATIONS AND TECHNIQUE OF PODALIC VERSION

By FOSTER S. KELLOGG, M. D.

GENERAL REMARKS.

To bring freshness to so old a subject is a task. Can we justify its re-presentation here?

If we believe reports, we work in a country more dangerous than most in respect to death in parturition. It is said this greater danger lies, at least in part, in our over-readiness to apply operative procedures designed for saving life in confinement. The ill-advised use of Cæsarean section, forceps, and version is, we are told by a group of men in its capacity as a committee of investigation into causes of high mortality, responsible for a portion of this high mortality. Simultaneously—often published in the same volume of "Society Transactions"—these same men as obstetrical specialists advocate this or that operative procedure as prophylaxis for morbidity or mortality in childbirth. In addition, in different degrees, we have physicians, near-specialists, and

non-specialists, not to mention the advertising pages of medical journals, attractive gentlemen from the better drug houses, the magazines for women, occasionally the lay press when short of murders, dinning in our ears and our patient's ears that painless childbirth is now simple and safe in every home throughout our broad and happy land. If not this way then that way, they tell us. And to augment confusion we have just passed, I hope, the pituitrin era, when enthusiasts buried their forceps and pushed babies out with the plunger of a syringe.

Bearing in mind the considerations enumerated above, we can perhaps justify a reconsideration of the indications for forceps and version for the average man under average circumstances.

We are fond of speaking of *obstetrics* as an art. *Childbearing* is better thought of as a game, played now in a sand-lot, now in a stadium. There are

*Read before the Maine Medical Association at Poland Spring, June, 1926.

three players, mother, baby, attendant. The game has its limitations, each player his or her limitations. The attendant is the captain. He should know first his own limitations, then the limitations of his field, then of his two patients. Based on this knowledge is his correct play to win.

Specialists are prone to emphasize that obstetrics is surgery. They did this originally to emphasize the necessity for surgical cleanliness in obstetrics. Has it not been over-emphasized and so interpreted that since surgery is operating and obstetrics is surgery, therefore obstetrics is operating?

Let us start with the proposition that from the standpoint of efficiency we have yet to observe any operative improvement on normal delivery when it works. There are those who do not subscribe to this proposition, yet to us as of average calibre it does seem true. I was raised on the dictum "obstetrics is surgery." Faithfully I operated my cases, generous with the anesthesia. Slowly I learned something of forceps and version. Slowly it dawned on me that *labor* is not surgery, and with that simple idea best obstetrics is not surgery usually. Clearly now it seems to me, after fifteen years, that best obstetrics consists in the utilization of labor to the utmost, plus an accurate judgment when, why and how to interfere if the normal process fails. Frankly, I believe the more normal labors I have the better results for my patients. This point of view, as you will all grasp, is not necessarily better for my practice.

Let us consider for a moment the matter of "painless labor" and its bearing on obstetrical operating. Consider the various methods from the beginning, developed in an effort to attain this

happy condition; opium and herbs, ether, chloroform, morphine and chloral, gas-oxygen, gas-oxygen-ether sequence, morphine-scopolamine "twilight-sleep," synegesic anesthesia with magnesium sulphate and rectal ether, ethylene. Each has its value, each its place; each, above all, its limitation. None is perfect, otherwise why so many? If twilight sleep is perfect, why gas-oxygen-ether? If either 100%, why synegesic anesthesia?

Let us be honest and admit that in all attempts at truly painless labor enters the element a little of trying to get something for nothing. Let us average men in obstetrics take the attitude that we are not after painless labor, but that we will in each case make labor as free from severe pain as is allowed by the given labor and compatible with safety to mother and child.

Let us not forget, in our enthusiasm, that ether stops labor as well as pain sooner or later; that chloroform has its dangers; that scopolamine-morphine means for safety operating at the end of the first stage; that synegesic anesthesia is not technically so simple nor in our hands so efficient as its advocates tell us, and that ether in the rectum and ether in the lungs is still ether. Let us not forget that morphine and repeated chloral by rectum, while apparently safe in the first stage, is not 100% efficient, and that gas-oxygen is expensive, time-taking and efficient in fewer cases than its advocates told us years ago.

Let us not forget that to the prospective mother of a child, within reason some suffering, some sense of contest, some sense of giving child life, of helping it to be born well and alive is to enhance its value. Our attitude to our

patient should not be, this is my job, but it is ours; you do your part and I will do mine, and I will see you do not suffer too much. To apply, then, any one method of "painless labor" routinely to all cases is not best obstetrics and will force us to unnecessary operating on a false self-induced indication. Conversely, to keep our faith with our patients, we must know the accurate technique of several or all methods of alleviating pain in labor and apply the proper method to the proper case. This is not difficult, since written descriptions are available and patients willing. But to each and every formula for painless labor let us add a grain of salt.

Nor must we forget that group of cases in which, in labor with pain, all the normal labor available without chance of narcotic interference depends the successful outcome for the child. Cases of border line pelvis, with the necessity for second stage slow moulding as opposed to rapid forceps moulding, with the greater risk of intercranial hemorrhage, fall certainly within this group. In my opinion, also, primiparous breeches that are to be delivered from below come under this head, though this opinion is not held by all authorities. These patients must suffer for their child's sake, if they are to be successfully delivered from below.

INDICATIONS FOR OPERATIVE INTERFERENCE IN GENERAL.

Operative interference from below, whether by forceps or version, clearly demands a ruling out of the Cæsarean pelvis prior to or early in labor. This has been covered well in the paper on Cæsarean Section. I will speak briefly of these cases, if seen late or neglected, in a separate paragraph at the end.

We will now consider some of the indications for operative interference by forceps or version laid down by specialists for specialists, or for specialists with the proviso that they may be readily learned and performed by non-specialists — this consideration to see whether they are truly indications for us as average obstetricians. You will forgive me if in this matter I am somewhat personal.

The first of these is the so-called "prophylactic forceps." By this is meant the delivery of every patient at full dilatation with anesthesia. The advantages claimed for this procedure are that it obviates the most painful part of labor and shortens labor as a whole; other enthusiasts have maintained that it diminishes the risk of fetal cerebral hemorrhage, that it diminishes the incidence of sepsis because the patient is under better control, and that it reduces the number and depth of perineal tears. As suggested above, I started my obstetrical life on the principle of "prophylactic forceps," and kept it up for about six years. I learned a lot about forceps operating in these years. I then decided that I would try leaving the second stage alone, controlling pain as best I could. I still do this. I can only tell you that my results are strikingly better since abandoning "prophylactic forceps." This is especially true of the feelings of the patient the days following delivery and her pelvic appearance eight weeks later.

Another procedure along the same line, though more rational in intent, is the indication of Bill, of Cleveland, for the use of his modification of the Scanzoni Maneuver in posterior positions of the occiput. He believes that posterior positions with full dilatation is an indi-

cation for forceps rotation and delivery *per se*. His grounds for this are that labor is frequently prolonged uselessly. Harrar, of New York, commenting on Bill's second paper advocating this indication, hits the nail on the head when he says, "There are two general rules that call for interference in these cases. One when there is no advance in posterior occiput with strong pains, and secondly when there is no advance with increasing extension." It is to this comment on the indication I subscribe and not to Bill's original indication—Bill's contribution to the technique of the Scanzoni Maneuver, which I will show later is extremely valuable, however.

The next advocated indication for delivery in this group is the Potter Version. The Potter Version is also prophylactic. It is said to save perineal, and it certainly saves second stage pain, and it is said to save a certain number of babies in the presence of occult prolapsed cord and to lessen danger to child from prolonged pressure. Potter Version as an indication is internal podalic version by the Potter method, done routinely at full dilatation.

It is necessary to be very broad-minded in discussing Potter's indication for internal podalic version, but we can afford to be, for he is. He said, in discussing the last paper I heard him read, "We are all working along the same lines, but let's get together in this thing, and if you don't want to do version, don't do it; I don't want to urge you." That is a fair and open-minded view to take of one's own pet procedure, and it seems especially sound advice, for a few minutes before he said, in reply to a question on indication, "The indication of course will depend on the operator. You have your indication for opening the abdom-

inal cavity; you surgeons have your indications for determining at once when the appendix is going to rupture, and you open and remove the appendix and save the patient. Lots of times you take out a normal appendix. Everybody thanks you for it, because we know what a treacherous thing the appendix is."

In the face of this logic, in fair-mindedness I would call your attention to these facts in relation to Potter's indication for Potter Version for us average persons:

1. His reported results are good.
2. Results reported by his imitators, which we would be, are many times bad.
3. It cuts out all border line cases, because it calls for a woman with normal pelvic measurements, whose child's head can be pushed into the pelvis from above.
4. This results, we must assume, and is borne out by a study of his statistics, in an increased incidence of abdominal Cesarean section.
5. Whether Potter, or you or I, do more Cesareans than are necessary as opposed to deliveries from below, we will increase maternal mortality, though we may somewhat diminish fetal mortality.

Therefore I believe we may say that the indication of Potter Version will not help our general results. As with Bill's technique of the Scanzoni, we must feel that Potter has contributed much to the technique of internal podalic version.

Watching ourselves on our analgesia and anesthesia, and rejecting prophylactic this and that for our use, what are reasonable grounds for us to terminate labor by operative procedure from below?

First, let us put down one general principle. We will operate when we have to, not only before either patient

is exhausted, but while each patient is in good condition. Specifically, we will operate on progressive pulse rise in the mother before it is over 100, and we will operate, if it is reasonably safe for the mother, before the baby's heart begins to be irregular. A second general principle is, that we will not operate until the cervix is fully dilated—not so called dilatable—if we can help it.

This leads to the observation that first stage inertia, failure of the cervix to dilate properly, is oftenest overcome by rest, with morphia and chloral by rectum and one or more *gentle, partial* dilatations of the cervix with the hand under gas or light ether anesthesia. These dilatations should be made simply up to a point where the cervix does not tear, the patient allowed to come out of the anesthetic and labor allowed to continue.

One exception must be noted to this second general principle. With ruptured membranes and cervix only partially dilated, immediate manual dilatation and extraction is indicated if the pains become irregular and the lower segment tender, or tense, or both. The probability of the development of a contraction ring severe enough to be a serious obstacle to delivery is so great in the presence of these findings that labor should not be allowed to continue. It is in this class of cases that most ruptured uteri occur (barring placenta previa), either accompanying the use of pituitrin or operative delivery.

If we adhere to these two general principles, we have but two fair indications for interference with forceps or version. These are impending exhaustion to the mother, and jeopardy to the life of the child.

Specifically, then, we will take up each factor which results in one or the other of these conditions and show which of the two operations is called for and why. These opinions are based on the supposition that we are equally masters of the proper technique of forceps delivery and of internal podalic version. This assumption is as it should be, but from experience I fear is not as it is. Most of us do better versions than forceps, because the mastery of forceps is more difficult. That this is so is most unfortunate, because if we do versions when we fail forceps, due to lack of ability with this instrument, we are not usually following the strict indication in the given case and doing the best for our patient. A mastery of forceps operating can be attained by anyone who will persist in trying, though it will take one man a year and another five.

Let us consider first factors which result in maternal exhaustion indicating operative interference from below. Under this head may be grouped: 1. Women of poor nervous resistance. 2. Premature rupture of the membranes in a small number of cases resulting in prolonged labor. 3. First stage inertia. 4. Lack of progress in the second stage due to a variety of causes. 5. Certain cases of cardiac disease in pregnancy. 6. Toxemics and nephritics. 7. Tubercular and diabetic patients. 8. Ablatio placenta after considerable dilatation. 9. Certain cases of placenta previa. 10. Certain abnormal presentations on the part of the fetus.

We take up each of these factors in detail.

1. Women of poor nervous resistance. This group of women either re-

act abnormally to pain stimuli or are so nervous that they become hysterical with the early labor pains. Whichever way it works, they are the patients who begin to raise a great "to-do" long before objectively the pains are sufficient to warrant it. Reynolds and Newell recognized this group, advocated abdominal Cesarean section for it, and averred, I believe justly, that they stand operation far better than labor or pain. These men of wide observation feared for the future of these women if subjected to the ordinary labor. Among them occur some of the alarming cases of post-delivery obstetric shock, the result of nothing tangible except their own lack of resistance to labor. This group lends itself, it seems to me, particularly to morphine-scopolamine anesthesia throughout the first stage, and delivery with forceps at full dilatation, in this wise avoiding the Cesarean risk.

2. Premature rupture of the membranes in a small number of cases. Premature rupture of the membranes *per se* usually results in no condition indicating operative delivery from the standpoint of the mother. In a small group it apparently results in hindering or stopping dilatation of the cervix. If this occurs, and, in spite of small manual dilatations previously described, persists, delivery is indicated in the interests of the mother as soon as progress is definitely stopped, or at latest as soon as any of the previously mentioned symptoms of contraction ring formation begin. If the head is not in the pelvis and a rim of cervix persists after manual dilatation, especially if the patient is a multipara; and if the ring is not yet developed nor the uterus dry or tight, I have come to feel, changing my

opinion on experience, that internal podalic version is the operation of choice, as I think it spares the cervix and is safer for the child. If the head is in the pelvis, if the patient is a primipara, especially if she has a slight degree of justo-minor pelvis rather than a flat pelvis, or normal pelvis, and certainly if the ring has formed or the uterus dry or tight, forceps is the choice of operation even though the manual finishing of the dilatation results in a high application. Under technique later I shall touch on the proper method of traction in a ring-formed case of this kind.

3. First stage inertia. First stage inertia I think the commonest cause of trouble in American obstetrics. It has been ascribed to the somewhat vague cause, "faulty innervation of the uterus." It has been noted especially in nervous women, and again in short, thick-necked, fat women. Its primary cause has by some been ascribed to faulty development due to poor puberty hygiene. It is commoner the higher up the social scale. It is very rare, if it occurs at all, in continental Europe among the peasant class, in my experience. I saw sixty consecutive deliveries in French peasants without observing a single instance of it. Striking was the manner in which these peasant uteri performed first, second, and placental stage. Some recent evidence, especially the work of L. V. Friedman, suggests that it results from over-feeding in pregnancy. His results are inconclusive, but in a short series of cases he shortened his first stage by 50% by keeping the weight gain in his dieted series to one-half pound a week. First stage inertia clinically in two forms, one rare, the other relatively common. The rare type shows failure of dilata-

tion in the presence of pains of good quality and regularity. I think, but do not know, that this type is usually associated either with the long, thin, conic cervix of the fetal type or with the exaggerated button-like type of cervix, in which the vaginal portion is flat and protrudes but slightly into the vagina. Sad experience has taught me great respect for these types of cervix, especially in relation to attempts at induction with the bag. Fortunately for patients they are rare; unfortunately for experience, so rare that one man's impression of them may be erroneous. The commoner type of first stage inertia is characterized by pains irregular in interval and length, or spasmodic in regularity, either way resulting in a failure to obtain complete dilatation. Small repeated dilatations fail to advance on the removal of the anesthetic. Sometimes on re-examination the cervix has shut down to the dilatation it had before the artificial stretching. Ultimately the patient shows signs of beginning exhaustion, either with intact membranes or after artificial or natural rupture, as shown by her rising pulse and in spite of rest with analgesics. Manual dilatation and delivery is here indicated, and the choice of forceps or version depends again on the factors outlined in the preceding paragraph. These cases occur, of course, frequently in posterior positions with arrest at the brim and extension, and the first stage inertia is usually attributed to the position of the fetal head. This is an erroneous conception, I think, because this occurs also in anterior positions, and because there is nothing in the position of the head that I can see to mitigate against dilatation, which is essentially a picking

up and pulling out of the cervix, aided to a less extent, it seems to me, than is usually supposed by the membranes. Two facts show this is true, one that the majority of dry labors dilate without help from the bag of waters, and two that while posterior positions are probably as common in continental peasants as among us, first stage inertia is rare.

4. Lack of progress in the second stage. This condition is due to a variety of causes. Uterine inertia is not uncommon, due to the same cause as first stage inertia acting later. Failure of the vis a tergo to rotate a posterior head with arrest and extension is a cause. Extension of the head itself is a cause, sometimes due to several loops of cord about the neck, sometimes due to the type of pelvis. Narrow outlet and arch is a cause. Very heavy perineal musculature is another. A tightly repaired vagina still another. Again, this condition calls for operative delivery in the event of approaching maternal exhaustion, as shown by the mother's pulse rate. Forceps is practically always the choice in this group. Bill's technique for the Scanzoni may be used in posterior arrest, but again I agree with Harrar, that it is best to try manual rotation and forceps first; failing this, Scanzoni, and failing Scanzoni, internal podalic version. One exception to the rule for forceps in this group is in the event of several loops of cord about the neck. This condition should be discovered on examination, search being made on every extended head. If found, version is the operation of choice, since many loops of cord so placed may result in a relatively short cord, and the pull with forceps result in premature separation of the placenta. It is very easy also to pinch one or more loops in

the tip of the forceps and so lose the baby, if several loops are about the neck.

5. Cardiacs, if delivered from below, should be allowed no second stage.

6. Toxemias and nephritics are frequently allowed no second stage. Personally, I make it a rule never to interfere, in the interest of the mother, with either so long as progress in delivery by the natural forces is evident.

7. Tubercular and diabetic patients, in the event of delivery from below, should be allowed no second stage. No inhalation anesthetic should be allowed tubercular patients, morphine-scopolamine and sacral anesthesia being the choice. In diabetics, gas-oxygen following morphine-scopolamine is the choice.

8. Certain cases of ablatio placenta, when full or nearly fully dilatation is present when seen, call for immediate delivery. This does not include partial separation of low-attached placenta, which is nearly always controlled by artificial rupture of membranes.

9. Certain cases of placenta previa call for interference to control bleeding—never immediate delivery—always bipolar version and as near normal breech delivery as possible.

10. Certain abnormal presentations on the part of the fetus call for immediate interference, for the sake of the mother as well as the child. These are transverses with ruptured membranes at any stage of dilatability. If the cervix is not dilatable, either immediate abdominal Cæsarean if the membranes have been ruptured five hours or less, or bag to the cervix if longer till the cervix becomes dilatable, very careful watch being kept for a tensing uterus. Version is, of course, the oper-

ation. If the membranes are intact, permit labor to continue. Breeches should be delivered when found if the cervix is dilatable, usually by version, as when one attempts to flex the head and apply forceps, especially if any moulding has taken place, the extension tends immediately to recur. Faeces may be left to nature, but should be watched carefully for proper rotation.

We may now consider factors which force interferences in the interests of the fetus. These include: 1. Frank prolapsed cord. 2. Occult prolapsed cord. 3. Knots and kinks in the cord. 4. Fetal heart changes and meconium coming away in head presentation, i. e., fetal exhaustion. 5. Certain cases of recurrent toxemia or chronic nephritis. 6. Certain cases of ablatio placenta. 7. Certain abnormal presentations of the fetus. 8. Breeches.

1. Frank prolapsed cord, if pulsating, calls for immediate manual dilatations and delivery by version. If not pulsating, the case should be left to nature.

2. Occult prolapsed cord. By this is meant a loop or more of cord lying side the face toward the neck in such wise that it may be pinched as the head comes through the brim or by forceps tips. It manifests itself in two ways, clinically: First, by failing fetal heart, as the head descends often a little below full dilatation and with unruptured or ruptured membranes. Second, by a stillborn baby after forceps delivery with the pinched cord in the tips. Failing fetal heart, with descent or toward the end of the first stage, or even earlier, should cause suspicion of this situation—result in examination, discovery, and delivery by version. This condition

has a bearing which I will later bring out in relation to the technique of forceps application.

3. Knots and kinks in the cord—the kink being of the type seen in home extension telephone wires—on itself, so to speak, may asphyxiate the child. The condition may take place prior to labor and so be unpreventable. If in labor, failing fetal heart accompanies descent and calls for delivery as under the next heading.

4. Fetal exhaustion, as shown by failing fetal heart due to lack of progress and pressure from one cause or another, as detailed in preceding paragraphs, calls for immediate delivery, providing such delivery will not damage the mother too much to make the attempt to save the baby worth while. This usually depends on the degree of cervical dilatation present at the time fetal exhaustion supervenes. In this connection it is well to remember that the worse off the baby is when the operation starts, the less likelihood there is of getting a persistently live baby to pay for maternal damage. To avoid starting with a poor fetal risk it is well, as a rule, to operate on reasonable lack of progress.

5. Certain cases of *recurrent* toxemia or nephritis require interference in the interests of the child. The more we have had opportunity to study women who have lost one or more babies with these conditions, the more we are convinced that wisdom demands getting the baby out while alive as soon as we think it big enough to survive. Usually abdominal Cæsarean is both justifiable and wise in these cases, especially as we usually deal with a premature infant who stands operative delivery from below badly, but occasionally forceps or

version interference after labor is somewhat advanced is justifiable. It must be remembered, however, in this connection, as suggested under indications in the interests of the mother, that these patients stand shock and hemorrhage very badly. Emerson L. Stone, of New Haven, has very nicely demonstrated this fact in a recent article on obstetrical shock, and we have all made the same clinical observation.

6. Certain cases of *ablatio placenta* well dilated call for interference in an effort to obtain a living child as well as in the interests of the mother.

7. The same abnormal presentations of the fetus as call for operation in the interests of the mother demand interference in the interests of the child.

8. Breeches. According to Irving and Goethals, all breeches are safer extracted at full dilatation. This does not properly belong to our subject, and time does not permit an exposition of this viewpoint.

It will be seen, then, that even if we reject enthusiastic operating, if we use labor to the fullest possible extent, we will still find reasonable excuse for necessary operating and a justification for the perfection of our judgment and of our technique.

I have said I would devote a paragraph to operating on patients seen late in labor who would have had a Cæsarean if seen earlier, or who should have had a Cæsarean had our judgment been better, or where, having depended on decent labor for moulding, it has failed us.

We all get up against this type of case with a living child. If the child is dead, unhesitatingly do a craniotomy, and do not be consumed with curiosity to see if you can't get it out after some-

body else couldn't. A drop rod axis traction forceps — Tarnier, Irving or another — but a real axis traction forceps that can make axis traction you must have in these cases with a live baby. If your patient has a just minor pelvis or dry uterus, make up your mind before you start you will not do a version; if she has a flat pelvis and a wet uterus, that failing one perfect application you will resort to version. Forget the last time you heard some specialist in obstetrics say that nobody ever does high forceps any more—very brutal operation—and with great deliberation put the blades over the ears and spend about forty-five clock minutes in the extraction, letting up just as much as pulling. Surprisingly often you'll get a live baby and a live mother if you are deliberate, and avoid turning in a dry uterus; often in the flat pelvis and wet uterus you'll turn and get a live baby. Sometimes you must do a craniotomy on the after-coming or fore-coming head. High forceps is not a sweet operation or one of election, but if you do not do some hard high forceps, either your judgment is perfect, which it is not, or you're doing too many Caesareans for the good of your maternal mortality.

TECHNIQUE OF VERSION AND FORCEPS.

TECHNIQUE OF INTERNAL PODALIC VERSION.

I assume familiarity with the classical technique of internal podalic version.

I shall recall to your mind Potter's technique in detail, and shall then emphasize certain points in version and extraction which in my experience are often forgotten or slurred in practice, to the detriment of the patients.

Every step in the carefully worked out detail of Potter Version is of value and should be applied as a routine in version operating, varying them only as necessity or judgment demands. Bear in mind, however, that the Potter technique is primarily for *elective* version.

This description is taken from his paper read in 1924 before the American Association of Obstetricians, Gynecologists and Abdominal Surgeons.

The steps briefed are:

1. Short sleeved gown, long sleeved rubber gloves.
2. No enema unless plenty of time.
3. Progressive dilatation of the vagina, first with one finger, then with two, three, four fingers, then whole hand palm up—always the left hand.
4. Separation of membranes with hand as far around as can be reached.
5. Rupture of membranes as high as possible.
6. Make out exact position of child, location and condition of cord, character of amniotic fluid.
7. Fold arms across chest if down side body and if hand is side head that is folded across chest. This should be emphasized, as it prevents extended arms.
8. Both feet brought down and held between first and middle finger while right hand gently but firmly pressed head from iliac fossa. If thighs are flexed on abdomen, one foot and then the other is obtained by hooking one finger in the flexed knee—they are brought down palm up with the dorsal surface of the hand going through the hollow of the sacrum. If the legs are crossed at the fundus, they are unlocked before being brought down.
9. With child's feet as vulva, gentle

traction till knees appear and the version is complete.

10. Stop, clean up field of operation and allow buttocks of child to adapt to mother's pelvis.

11. "From now onwards gentle traction is made with the child's toes pointing upwards until the groin of the child is under the pubic arch, when the legs of the child are raised upwards and the buttocks appear at the vulva and the baby is allowed to sit upon its mother's perineum." This all without haste.

12. Locate any obstruction to the passage of child:

(a). Cord about legs or between legs, ligate and cut, or simply cut, completing delivery and snapping umbilical end of cord when it appears.

(b). Prolapsed arm. Do not hurry, but when fingers appear at vulva, seize with gauze and deliver as prolapsed arm.

13. Rotation of the crest of ilium to right or left as indicated by the position of the occiput. General traction is now made on the child's legs in a direction parallel with the mother's thighs, and not downward toward the floor, as has been advocated, until the scapulae appear.

14. Delivery of the shoulders, which are now in position to be delivered by putting the finger against the angle of the scapula. The shoulder is pushed under the pubic arch and the scapula, shoulders and humerus are delivered in the order named. Then with the finger in the bend of the elbow, the child's arm is lifted up across the chest like a pump handle. Supporting the child's body on one hand, the operator now places his fingers upon the angle of the posterior scapula, which is rotated under the pubic arch in the same man-

ner, thus delivering both arms as anterior arms and avoiding any contact with the region of the rectum.

15. Delivery of the head in the following manner: Now feel around the child's neck to see if the cord is twisted or caught; if so, free it if possible, or cut it. Then with the child's body resting upon the operator's left hand and forearm, with one finger in the child's mouth to maintain flexion of the head, pressure is made upon the occiput through the mother's abdomen above the symphysis and the flexed hand is pushed through the pelvis, by the operator's right hand, until the mouth and nose appear at the vulva. Do not at any time raise the child's body over the mother's symphysis, as such a procedure usually results in a broken neck. Now time is taken to strip mucus from the child's mouth and allow for still greater stretching of the vulva, when the head is gradually lifted up over the perineum and delivered as a flexed head.

Each step in this technique should be memorized, and then practiced till perfected. From my own experience, I will say it is easier to do correctly in an elective version than on many forced versions. But as one trained in the classical method, I find it far superior. The two great advances in it, to my mind, are the placement of the arms in utero and the method of delivery of the shoulders anterior by rotation. To the occasional operator the insistence on slowness and gentleness are an inestimable contribution.

As I have seen babies lost by version in my own early experience, in supervising large numbers of hospital deliveries, and in consultation practice, these errors in technique stand out in my mind as responsible:

1. Failure to flex the head and keep it flexed by a finger in the mouth, not in the canine fossa.

2. Improper supra pubic pressure—pressure exerted toward the sacrum or toward the symphysis and not in the axis of the superior strait.

3. Failure to apply forceps to the after-coming head soon enough when the head is readily get at able.

4. Failure to apply Deventer's Maneuver if the head is difficult for forceps or the arms extended.

5. Traction with the thumbs higher than the sacrum with pressure over the kidneys and suprarenals, resulting in hemorrhage.

6. Hurry as the head comes out, raising the baby over the symphysis with a resulting broken neck.

As I have seen mothers lost by version—and not a year goes by without my seeing or hearing of one or two—it is almost always the same story. A ringed or dry uterus, an inexperienced forceps operator, forceps failure, resort to version, ruptured uterus, usually death.

So much for the technique of version. If I have omitted anything you can perhaps bring it out in the discussion.

TECHNIQUE OF FORCEPS.

Again we assume a knowledge of the classical application of forceps, and simply emphasize certain points of technique that experience with operating and teaching has made stand out in my mind.

1. Every application should be over the ears, cephalic, never pelvic, unless the head has rotated to the arch and they are the same. An oblique application, besides drawing an unfavorable diameter through the pelvis to the detri-

ment of the soft parts, is a potent cause of massive intercranial hemorrhage with torn falx and tentorium. When we pull a baby through a pelvis with an oblique application, we are doing the same thing we did, as boys, when failing to split an apple with our hands by direct pressure, we twisted it half clock wise the other half contraclock wise. It "bust" usually; so does the inside of the baby's head when, with forceps, we imitate this in a tight pelvis.

2. As a means to the end of a cephalic application, one bears in mind that the second blade of the forceps should always be made to meet the first blade. This sounds axiomatic, yet I have watched men operate for months, wondering why they always ended with an oblique application, where the reason was simply failure to grasp this principle. Since the first posterior blade is put on accurately over the ear by direct touch, as a rule, and the second anterior blade goes on blind, the necessity for adherence to this principle is obvious.

3. Two methods of applying forceps are in vogue when the head is in the pelvis. One is based on the diagnosis of position by suture and fontenelle; the other is based on palpating the posterior ear. The argument in favor of the former is that the head is not displaced upward. Due to moulding and caput, it is not always possible to make an accurate diagnosis this way. Personally, I prefer, in all but heads on the perineum rotated, to palpate the posterior ear and the neck also. This gives an opportunity for absolutely accurate cephalic application, and makes sure by neck palpation that a cord loop is not pinched in the forceps tip. If the head has come low itself, I do not mind lifting it a bit, because it will readily come

back down with a good forceps application. If the first method is used, the fetal heart must be watched with especial care, a thing often difficult or impossible with the patient breathing ster-torously under the anesthetic.

4. When using forceps in a case with a contraction ring or a tight uterus—traction should be less intermittent, hardly at all so—the operator steadily should lean on the forceps without undue force until the ring slowly dilates and lets the baby through. These cases are usually neglected, and no haste or undue force should be used to get a live baby at the expense of a ruptured lower segment.

5. The technique of handling posterior positions I have already touched on under indications. Three points to bear in mind with manual rotation, which I consider the operation of choice, one to help rotation of the head by rotating the shoulder also with the external hand, two having the shoulder held there to help preserve rotation of the head, and three to rotate the head with the hand, which will ultimately be over the posterior ear, so that this hand may be kept in holding the head rotated while the posterior blade is applied. The posterior blade should be within easy reach, so in going for it the hand and head are not displaced.

6. And last, we should be masters of the technique of Bill's modification of the Scanzoni, so that, failing in manual rotation, we are not obliged to resort to version, especially in the justminor border line case where version is so distinctly contraindicated. In classical Scanzoni, the blades are applied away from the presenting part, and rotation anterior, or at least transverse, is obtained by traction—preferably with axis

traction rods, which in this instance are nearly foolproof, coupled with impingement of the head on the pelvic floor, with its usual thrust-forcing anterior rotation. Bill's technique calls for the same application, but is forceps rotation, with the head at whatever level it lies, without traction. This is obtained by rotating the forceps. Rotation should be made in such a way that the blades of the forceps shall remain in approximately the same axis. "With the usual forceps which have a pelvic curve this may be accomplished only by making the handles of the forceps describe a large circle during the rotation. Failures in attempts at rotation are very often due to simply twisting the handles, which tends to make the tips of the blades deviate from their axis and describe a circle, which of course they cannot do, since such an attempt would only force the child's head against one side of the pelvis and rotation would not occur."

"Rotation should be continued until the sagittal suture lies in the anteroposterior diameter of the pelvis and not merely to the oblique diameter. If rotation is carried only to the oblique diameter, the head will very likely slip back to the posterior position before the reapplication of the forceps."

"After complete rotation, and before the removal of the blades, enough traction is made to fix the head in its new position. The blades are then removed and reapplied to the head which is now in a normal position."

"In the reapplication of the forceps the posterior blade should always be applied first to support the head and avoid the possibility of forcing it back into its original posterior position during the application of the anterior blade."

This procedure can be accomplished with the Kelland forceps without making the handles describe the arc, because it has little pelvic curve and without reapplication because it works upside down.

This modification of the Scanzoni is unquestionably safer than the classical method for mother's soft parts and for the child.

The subject of this paper does not permit of a summary. Already I have exhausted your patience by the length of this talk, yet I fear we have left some ground untouched. I hope if this is so, you will develop it in the discussion.

19 Bay State Road,
Boston, Mass.

THE CAUSES OF LIMITATION OF MOTION AND ANKYLOSIS, AFTER FRACTURES IN AND ABOUT JOINTS

By HENRY W. LAMB, A. B., M. D.

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In the treatment of fractures in and about joints, there must always be a compromise between the risk of deformity and ankylosis or limited motion due to over-long fixation. Such is particularly true when the joint involved is the elbow, where the range of motion is 160 degrees. After reduction, the arm must be placed in acute or at least 90 degrees flexion, and is usually held in that position from four to six weeks, thus presenting the task of re-establishing the normal range of movement after complete immobilization.

The permanent fixation of a joint in the position necessary to maintain reduction is directly due to two causes:

1. Excess callus formation.
2. Over-long fixation.

Over-long fixation is the factor to which is attributable the majority of cases of limited motion, not only because of the long immobilization, but also because of the treatment after

the apparatus is removed. The usual procedure is this: Splints are removed at the end of six to eight weeks, and the joint which has restricted motion does not respond to massage and movement as readily as had been anticipated. So the patient is anesthetized, and the injured arm subjected to the process known as "breaking up adhesions." The result is, that with the increased osseous insult, excess repair material is thrown out and callus formed, which, together with the already present tendon shortening and muscle atrophy, locks the joint completely in the position in which it was held at the time of reduction.

A method of treating these fractures, which should neither militate against solid union nor produce an overgrowth of callus, has become a necessity.

Two factors must be taken under consideration in any type of treatment attempted.

1. Over-production of repair tissue.
2. Shifting fragments by too vigorous, early movement.

1. It is known that during the developmental period, certain fractures at or near joints, such as the elbow, are much more prone to result in restricted motion from excess callus formation than others. Those fractures producing this limitation from large masses of callus are chiefly situated on the diaphyseal side of the bone, passing through the epiphyseal cartilage; while those that do not produce restriction of motion are more often confined to the epiphyses on the articular side of the cartilaginous plate. Obviously an individual's natural ability to throw out callus cannot be lessened, but any stimulation tending to increase the normal formation can be guarded against. Then, too, the site should be taken into consideration, and fractures situated on the diaphyseal side of the cartilaginous plate treated more cautiously. Any early active or vigorous passive motion must be avoided, for irritation of the various tissues involved in the fracture speeds up the repair process, so that the resultant callus is far greater than is necessary for firm union or good function.

2. In the cycle of bony repair, a transitional cartilaginous stage usually occurs; but under favorable circumstances, the osteoblasts may develop directly into bone without passing through the transitional stage. In fresh fractures which are at once accurately coapted, there is not only a minimum of transitional cartilage, but also a direct proliferation of osteoblasts occurring within a few hours after injury, and a rapid transformation into mature bone. As we know from experience,

slight movement of the fragments often stimulates osteoblastic activity, so that union takes place. In the following method of treatment, the movement, though minimal, would tend to favor callus formation rather than inhibit it. With what one terms to-day good approximation, union begins early, and within a short time this ought to be sufficient to prevent dislodgment of the fragments. In transverse fractures, when perfect reduction is secured, the fragments will usually stay in alignment even when movement of adjacent joints is attempted immediately after reduction. With careful checking by frequent X-rays, this factor of dislodgment by movement is under absolute control.

All fractures about the elbow joint are treated by the following method, with the exception of those of the olecranon process and the neck of the radius. In these, the early, passive, momentary motion may be utilized, but the type of immobilizing apparatus differs.

There is no contra-indication for the use of this method in those cases which have come to open reduction.

Immediately after reduction, the arm is immobilized for a period of five days in acute or 90 degrees flexion. Any type of splint may be used, though plaster casts or adhesive strapping seem to be the most satisfactory. At the end of this period, the movement herein described is instituted. The movement is passive, momentary, and in only one direction, followed by immediate splinting. The plan is, not to start active motion, or passive motion with massage, because of their stimulating qualities; but simply to change the position of the arm every other day

from flexion to extension, within the limits of pain, this process being reversed at the next manipulation. Thus a minimum amount of activity is given, which, it would seem, should prevent any but the minimal amount of stimulation. The alternate movement from flexion to extension, and *vice versa*, within a few days after reduction, tends to keep the flexor and extensor muscles in good condition and prevents contraction of the biceps and triceps tendons. In the series treated in this manner, it was found that an additional 15 to 20 degrees extension was possible at each manipulation, full flexion remaining practically constant. It was also noted that if two days were allowed to elapse between each movement, more motion without pain was possible than was true if daily manipulation was resorted to. If periods longer than two days were allowed between sittings, the amount of flexion and extension was appreciably decreased.

With this method, at the end of three weeks, all apparatus can be removed and the arm should have practically full function. At this time vigorous massage and passive motion are employed, and the patient is urged to use the arm as much as possible. Complete and absolutely painless restoration to the normal range of motion should be forthcoming within a week after removal of splints.

Apparatus used:

1. After reduction, plaster cast or adhesive strapping.
2. From the fifth day to twenty-first day, posterior hinged elbow splint.

In general, a plaster cast, with the arm in full flexion if possible, is the splint of choice immediately after reduction (Fig. 1). With this, the fragments

are held firmly in position, with no danger of dislodgment from external violence. The cast is bivalved at once, apposition of the shells being maintained by adhesive tape and a firm gauze bandage, thereby allowing for instant removal should there be any embarrassment of the circulation. On the fifth day the cast is removed, the arm extended to the limit of pain, and a posterior hinged splint applied (Fig. 2). The elbow is X-rayed at once to ascertain whether or not the fragments have been dislodged. On the seventh day after injury, the arm is again brought to full flexion without removing the splint (Fig. 3). This is accomplished by loosening the thumb screw at the hinge, swinging the lower half of the splint into the desired position, and locking it by tightening the screw. On the ninth day, the arm is extended as far as possible without causing pain (Fig. 4). This alternate flexion and extension is continued every second day until the twenty-first day after the injury, when the splint is removed, and no further apparatus employed.

A series of records is cumbersome and unnecessary, but the following typical case is appended in order to clarify the foregoing description of the procedure.

J. D., aged 8, M. W. S. Admitted August 17, 1926. Complaint, pain and swelling left elbow. F. H. and P. H. irrelevant. P. I.: Two hours before admission, patient fell from tree, injuring his left elbow. No other injuries sustained. P. I.: The left elbow is swollen, ecchymotic, exquisitely tender to pressure, and shows a posterior deformity of the distal end of the shaft. Marked crepitus. Examination otherwise negative. Diagnosis: Supracon-

Fig. I

Immediately after reduction
own choice of splint

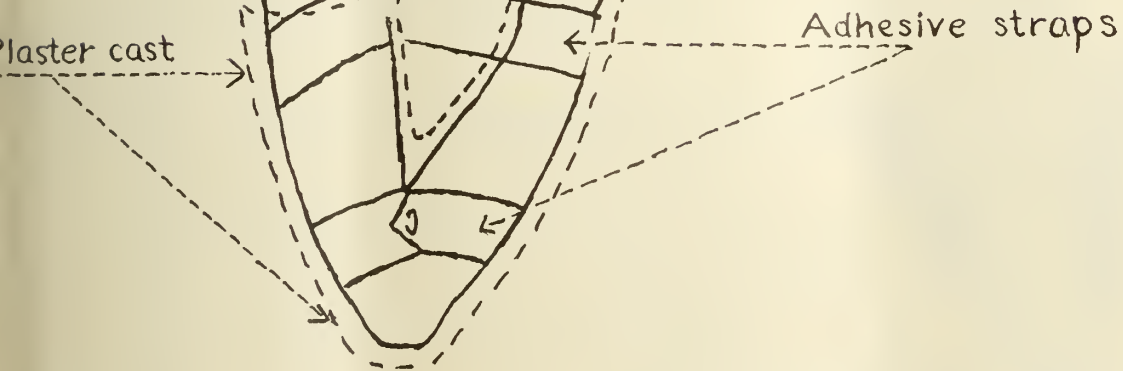
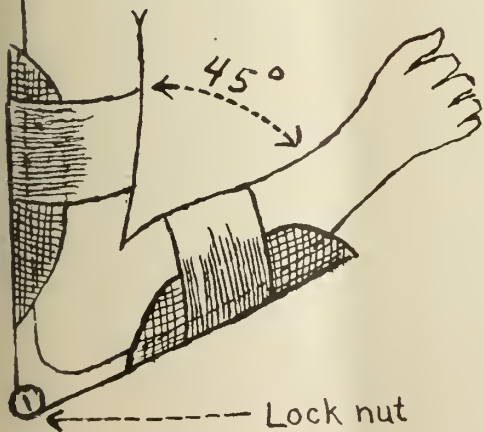


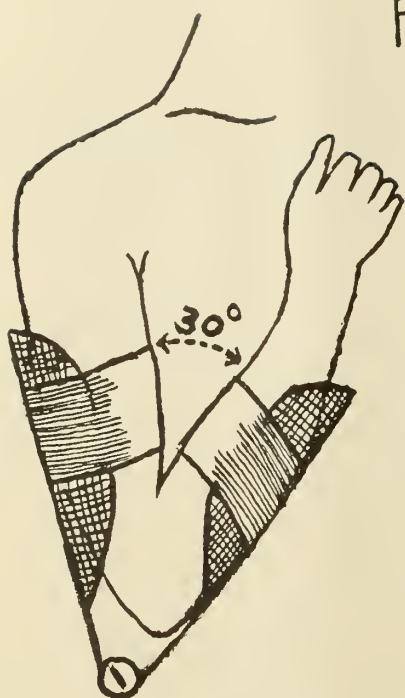
Fig. II

5TH day after injury
1ST day of movement



{ Hinged splint applied in
extension to limit of pain

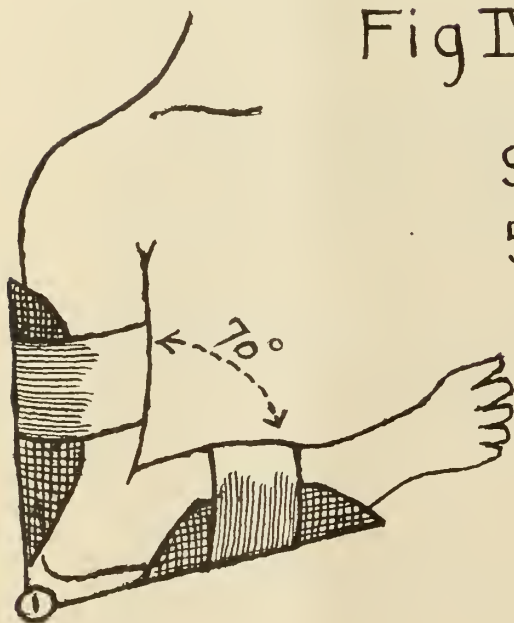
Fig. III



7TH day after injury
3RD day of movement

Flexion to limit of pain

Fig IV



9TH day after injury
5TH day of movement

Extension to pain limit

dylar fracture left humerus, with posterior displacement of distal fragment. X-ray confirms clinical diagnosis. Treatment: Under ether anesthesia, fracture reduced, and plaster cast applied, from axilla to palm, with arm in acute flexion. X-ray shows good reduction with excellent alignment.

Aug. 22, fifth day after reduction; plaster shells removed, arm extended to pain, hinged splint applied with forearm at an angle of 45 degrees with upper arm.

Aug. 24, arm brought to acute flexion and held.

Aug. 26, forearm extended to angle of 65 degrees with upper arm.

Aug. 28, arm swung back to acute flexion.

Aug. 30, extended to angle of 90 degrees with upper arm. X-ray satisfactory.

Sept. 1, arm brought to acute flexion.

Sept. 3, forearm extended to angle of 110 degrees with upper arm.

Sept. 5, nineteenth day after injury, arm acutely flexed and held.

Sept. 7, extension to angle of 140 degrees with upper arm.

Sept. 9, forearm extended to angle of 160 degrees with upper arm.

Sept. 10, twenty-fourth day after in-

jury, splints removed. Extension to within 10 degrees of normal, practically full flexion. Massage and vigorous passive motion started. Patient using arm in normal way.

Sept. 14, patient discharged twenty-seven days after injury, with full functioning, painless arm. Discharge X-ray shows healed fracture, supracondylar, left humerus, position excellent.

SUMMARY

1. In fractures about joints a compromise must be made between the risk of deformity and ankylosis or limited motion.

2. Permanent limitation of motion is due, for the most part, to over-long fixation with subsequent breaking up of adhesions.

3. With good approximation of the fragments, passive, momentary movement may be started within five days after injury.

4. Alternate flexion and extension every other day, by means of a posterior hinged elbow splint, keep the muscles in good condition and prevent tendon contraction.

5. With this method, a full functioning, painless arm should be the result at the end of four weeks.

United States Civil Service Examination

The United States Civil Service Commission announces the following open competitive examination:

ASSISTANT MEDICAL OFFICER
MEDICAL OFFICER

ASSOCIATE MEDICAL OFFICER
SENIOR MEDICAL OFFICER

Applications will be rated as received by the United States Civil Service Commission at Washington, until June 30, 1927.

There is especial need for medical officers qualified in tuberculosis or neuropsychiatry, for duty at hospitals of the Veterans' Bureau. There are a number of vacancies in positions in the Indian Service which call for training in general medicine and surgery. In addition, there is opportunity for appointment of specialists in practically all branches of the profession.

In addition to the Veterans' Bureau and the Indian Service, appointments from these examinations will be made to the Public Health Service, the Coast and Geodetic Survey, the Panama Canal Service, the Departmental Service at Washington, and other branches.

The demand for specialized medical officers in the Federal service is constant and the supply of eligibles is rarely equal to the demand.

Applicants will not be required to report for written scholastic tests, but will be rated on their education and training, and their practical experience.

NOTE—Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C.

NECROLOGY

**Joseph Louville Bennett
Bridgton, 1841-1926**

We lately listened, at a dinner given for our veterans, to a good "resurrection" story by Dr. Bennett. Although he then seemed in good health, he died suddenly October 28, 1926. He was the son of Joseph and Dolly Chaplin Bennett, of Bridgton, and born there August 6, 1841. As a boy he was delicate, and later contracted tuberculosis, but recovered entirely. He was educated at Bridgewater, and entered Bowdoin in the class of '65. In the Civil War he volunteered in the 23d Maine, but was discharged for wounds. He returned to college, enlisted for the war in the 7th Maine Artillery, ultimately obtained his degree in 1866, and finished his medical education in 1869.

He settled in North Fryeburg, then in Hiram, and finally he removed to Peabody, Mass., expecting to practice permanently. His wife's health, however, becoming affected after childbirth, and his father needing him on the farm, he returned to Bridgton for life. Mrs. Bennett was Miss Rosalie Larrabee, of Yarmouth and Alfred, who survives her husband.

He responded to calls, regardless of the time of day, distance, or ability of the patient to pay. He owned a long list of friends, many of whom spoke of

his tender-heartedness amidst their sufferings, a trait which endeared him to all. He employed, at different times in his home, young people, boys or girls, whom he helped to an education and a self-supporting life. And so, told briefly, our readers can see how Dr. Bennett honored daily a long life in medicine in Maine. J. A. S.

Resolutions of Respect

WHEREAS, It has pleased our Heavenly Father to take from us our esteemed brother, Joseph H. Murphy, M. D.,

Resolved, That the deplorable loss of life so full of service to his fellow men and the medical profession leaves a vacancy and a shadow that will be keenly felt and will prove a serious loss to the Penobscot Medical Society and the community in which he practiced for so many years.

Resolved, That a copy of these resolutions be spread upon the records of our society, a copy be printed in the MAINE MEDICAL JOURNAL and a copy be forwarded to the bereaved family.

A. C. STROUT, M. D.,
W. J. HAMMOND, M. D.,
F. D. WEYMOUTH, M. D.,

*Committee on Resolutions
for Penobscot Medical Society,
January 22, 1927.*

NOTICE

Preventable Blindness

Since the passage of the Missouri Constitutional Amendment providing pensions for the deserving blind in that State, 5,927 applications for relief have been submitted. In reviewing causes of blindness of the applicants, the recurrence of the venereal diseases, gonorrhea and syphilis, reveals a startling significance. For instance, Dr. H. M. Lamb who prepared a report of the law estimates that of the large number of cases classified under optic atrophy alone, 75% or 578 of such cases were due to syphilis.

It is a conservative estimate that of the 5,927 cases considered, 25% or approximately 1,500 cases are due to syphilis and gonorrhea. Under the terms of the statute for pensions for blind in Missouri \$25 a month is granted to applicants over 21 years of age who have been residents of Missouri for at least ten years or have lost their sight while a bona fide resident of that State, and who do not have incomes from all sources amounting to \$780 per annum.

Viewed strictly from the standpoint of economy, the conditions as found in Missouri emphasize the need for extension of the present Federal State program for venereal disease control which is carried on by the United States Public Health Service and the State Boards of Health. One of the most important features of this program is a campaign of public education and publicity seeking to emphasize the importance of prompt diagnosis and early treatment for those venereally infected. The importance of medical examination where any affliction of eye is noted or vision becomes faulty is stressed, and it

is believed that in this way many persons venereally infected who later might suffer the loss of vision may be placed under treatment in sufficient time to prevent permanent disability.

When consideration is given to the humanitarian aspects of the thousands of blinded persons throughout the United States, many of whom are innocent victims whose condition has resulted from the two preventable diseases, syphilis and gonorrhea, the need for the vigorous prosecution of active measures for the control of these diseases is even further emphasized.

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MAY, 1927

No. 5

*COMMITTEE REPORTS MAINE MEDICAL ASSOCIATION

SECRETARY'S REPORT

About the usual amount of routine work has been carried on in the Secretary's office. A special effort has been made to answer all letters promptly and to put the work on a business basis. My secretary, after two years' experience, is able to take over the greater part of the routine, which up to this time has been onerous.

Some of the members of the Council have been helpful in keeping up the membership in the county societies.

Your Secretary, as usual, attended the State Secretaries' Meeting in Chicago in November. This year this conference was combined with one for regular health examinations, in both of which all the general officers of the A. M. A. took part. The meetings are always well attended by the majority of the secretaries and editors of journals from all the states, and are extremely helpful.

County meetings were attended in Aroostook, Hancock, Franklin, Oxford and Penobscot Counties, as well as two County Secretaries' meetings, held in Bangor and in Portland, one meeting of

the Massachusetts Council and two meetings of the New England Council in Boston.

SECRETARIES' AND OFFICERS' MEETINGS

The greater part of the meeting in Bangor was given over to the discussion of the problems of industrial insurance. By invitation, it was attended by members of the Accident and Industrial Commission, the Commission of Labor, and several representatives of insurance companies. All subjects regarding the activities of the medical profession in this work were fully discussed, and it was agreed by all that the proposition of the physicians regarding fees, that they should attend and charge the same fees in industrial cases as in private practice, was fair and equitable; that both sides should have the privilege in disputed cases of referring the same to the Committee of Public Relations for adjustment. Having made this proposition to the insurance companies and stated our policy, I think this is as far as we can go at present.

The meeting in Portland was devoted

*This issue carries the reports of all Standing Committees of the Maine Medical Association and will be acted on at the Meeting of the House of Delegates without reading. Each delegate should familiarize himself with these reports.

more to the general discussion of the affairs of the Association. Senator Mitchell was present and gave first-hand information of the legislative work.

Before this meeting, the Committee of Public Relations met and approved a set of rules and regulations presented by the State Board of Health and Maine Public Health Association governing the work of health nurses in towns and counties. While these rules may be modified by the County Secretaries, they fix a working standard for all. These rules were published in the health number of the JOURNAL. The committee voted that the health committees of county societies should have the privilege of selecting the physicians to conduct the various health clinics in their counties. The committee also approved the nominees of the different heads of departments of the Maine Public Health Association and the establishment of a heart section.

Our relations with the various health activities have been very cordial throughout the year. We have endeavored in every way to bring about a better understanding and co-operation of those in charge with the medical profession, urging the physicians to take their proper place in assisting and directing the work on proper scientific lines.

MEDICAL DEFENSE

Again we have the pleasure of announcing that for another year we have had no case of malpractice on trial. One or two cases have been adjusted by council. Five new suits have been brought to our attention and are now being investigated. In almost every case the instigation can be traced to the careless remarks of some physician, or worse, and we trust that in every case

the responsibility can be placed where it belongs.

After the appointment of Mr. Pattangall to the bench, with the consent of the insurance company, the committee thought it best to continue with the firm of Locke, Perkins & Williamson, and so retained them as our attorneys, Mr. Locke to have the active charge of the work.

We again call your attention to the importance of liability insurance. There are still many of our members who are taking grave chances. One has been caught recently. While the Defense Committee are doing all in their power to help him, he stands to lose a considerable sum for at least attorney fees and cost of investigation. The sixteen dollars and seventy-five cents spent in premium often will prove a hypnotic of great value.

THE NEW ENGLAND COUNCIL

At the meeting of the Massachusetts Medical Society last June, Dr. Parker, the President of the New Hampshire Society, made the suggestion that it might be a good plan to form a New England Council, made up of representatives from all the New England States, this Council to meet at some central place once or twice a year to discuss various topics or problems of peculiar interest to all, the results of these discussions to be reported back to the different state societies. Dr. James Stone, President of the Massachusetts Society, became interested, and at the next meeting of the Massachusetts Council invited Dr. Parker and your Secretary to be present as his guests. After discussion, Dr. Stone was authorized to call together representatives from each state to discuss the

feasibility of such an organization. Accordingly a meeting of representatives was arranged at the Harvard Club, a temporary organization formed, and a committee appointed to draw up a constitution and a program to be presented at a following meeting in January. Our Association was represented by the President, Secretary and editor of the *JOURNAL* at both meetings. At the second meeting the following constitution was adopted:

A COUNCIL, DESIGNED TO REPRESENT THE
STATE MEDICAL SOCIETIES OF MAINE,
NEW HAMPSHIRE, VERMONT, CON-
NECTICUT, RHODE ISLAND,
AND MASSACHUSETTS

Proposed Constitution

Be it known that Dr. James S. Stone, President of the Massachusetts Medical Society, Dr. David W. Parker, President of the New Hampshire Medical Society, Dr. D. E. Sullivan, Secretary of the New Hampshire Medical Society, Dr. Thomas W. Luce, Ex-President of the New Hampshire Medical Society, Dr. Lester D. Gerrish, President of the Maine Medical Association, Dr. Bertram L. Bryant, Secretary of the Maine Medical Association, Dr. F. Y. Gilbert, editor of the *JOURNAL* of the Maine Medical Association, Dr. W. G. Ricker, Secretary of the Vermont Medical Society, Dr. Thomas S. Brown, of the Vermont Medical Society, Dr. Herbert G. Partridge, President of the Rhode Island Medical Society, Dr. Edwin A. Hyatt, of the Vermont Medical Society, and Dr. W. P. Bowers, of the Massachusetts Medical Society, met November 17, 1926, and formed a temporary organization for the purpose of developing an association which may consider matters of interest to the medical pro-

fession, especially represented by the Massachusetts Medical Society, New Hampshire Medical Society, Maine Medical Association, Vermont Medical Society, Rhode Island Medical Society, and the Connecticut State Medical Society.

The name of this association shall be known as "The New England Medical Council."

The purpose of this association shall be to consider from time to time all matters which may tend to promote cordial relations between the aforesaid state medical societies or associations of the New England States, to the end that there may be through closer contact, united action in promoting the efficiency of medical practice and the continuance of cordial relations among the aforesaid medical organizations.

Membership

The membership of this association shall consist of such representatives of each of the state medical societies or associations as may be elected or appointed by the aforesaid societies or associations, not to exceed five members of any one of the aforesaid societies or associations.

Officers

The officers of this association shall be a President, a Vice President, a Secretary, a Treasurer, and an Executive Committee of four of its members, two of whom shall be the President and Secretary *ex-officio*.

By-laws

The duties of the President, Vice President, the Secretary, and the Treasurer shall be those which are ordinarily discharged by such officers in any similar organization.

These by-laws may be amended,

added to, deleted, or in any way changed by a majority vote at any meeting of the Council, provided that any proposed amendment, addition, deletion, or other change shall have been set forth in the call for such meeting.

Meetings

There shall be at least two meetings in each calendar year. One of these meetings shall be designated as the annual meeting, at which an election of officers shall take place. Other meetings may be called at the discretion of the President and upon petition for a meeting signed by three or more members; the President shall within three weeks after receipt of such petition call a special meeting.

Executive Committee

The Executive Committee shall arrange for the program of the meetings and invite such guests as may be nominated by the President.

A report of the proceedings of every meeting shall be submitted to the President of each of the state medical societies represented in the Council.

The new England Council has already been approved by New Hampshire, Massachusetts and Rhode Island. There seemed but little doubt but that Vermont and Connecticut would also ratify at their next annual meetings. This will be presented at the next meeting of our House of Delegates in Portland, with the hope that it may be adopted.

Insurance and medical defense was presented as the subject for the January meeting. Dr. James Stone spoke upon the subject of insurance and malpractice suits, and your Secretary upon the Maine plan of insurance and medical defense. There was a free discussion by

all the members present. At the close, it was voted to recommend to the different states the adoption of the Maine plan of insurance and medical defense as the best.

CLINICS

Since the loss of our medical school, the only opportunity for post-graduate work in the state is the throwing open of our hospitals for frequent clinics to the men outside. Every hospital has abundance of interesting material which should be utilized in this work.

Several of the county societies have put on such clinics this year. The work should be continued and expanded until it includes every hospital and society in the state. At these clinics every man should be urged to bring in interesting patients to present for diagnosis and discussion, and be given the aid of the facilities of the hospital.

MEDICAL LEGISLATION

We are to be congratulated again this year in having able physicians in the Legislature to look after our interests. For the second time, the osteopathic bill to permit the practice of obstetrics was defeated in the Senate, after having been passed by an overwhelming vote in the House. In spite of this victory, we are simply marking time and postponing the inevitable. The only remedy that will settle the matter for all time and protect our citizens is some form of basic science act. Without further comment, we refer you to the report of Dr. Woodward, of the Bureau of Legal Medicine of the American Medical Association, published in this issue.

The Lye bill, sponsored by the medical profession for several years, has at last become a law, largely through the

efforts of our Congressman, Mr. Nelson, who as chairman succeeded in piloting it through the jam of the last days of Congress.

The Shepard-Towner act has continued for two years, with the understanding that at the end of that period it will automatically cease.

On account of the necessity of going to press early, the Treasurer's report and a supplementary report of the Secretary will be presented to the House of Delegates.

BERTRAM L. BRYANT,
Secretary.

THE INEFFECTIVENESS OF MEDICAL PRACTICE ACTS

By WILLIAM C. WOODWARD, M.D.

THE FAILURE OF MEDICAL PRACTICE ACTS

Laws regulating the practice of medicine are not accomplishing their purpose. They are intended to protect the public against incompetence, professional and otherwise, in the prevention, relief and cure of illness and injury; they have not done so. They tend to insure the competence of practitioners of medicine, but the good thus accomplished has been offset by the legalization and entrenchment of one cult after another, of inferior qualifications, whose adherents have taken the places of the incompetent medical practitioners of former days. The public is, therefore, probably not materially better off now than it was when our medical practice acts were first passed.

The legalized cults—the sanipractor, osteopath, naturopath and chiropractor

—are a menace, or else the qualifications demanded of practitioners of medicine are unnecessarily rigid. The cultist, without such qualifications, may lawfully assume full responsibility for the life and health of every patient who applies to him for aid. The law limits him only in the methods to which he may resort for diagnosis and treatment, and leaves him free to diagnose all diseases and injuries and to treat all patients with such limited means as are at his command. If a patient is suffering from an eruption and the chiropractor believes that he can be cured by manipulation of his spine, the chiropractor may lawfully take charge of the case, even though the patient has small-pox. If a patient is in the infectious stage of a venereal disease, the osteopath may lawfully endeavor to rub him back to health. If a patient has acute appendicitis, the naturopath may resort to the methods peculiar to his cult, leaving the patient to die because of the postponement of an operation or of no operation at all. The expectant mother, threatened with convulsions or ante-partum hemorrhage, is exposed by law to the tender mercies of the groups of practitioners named above and of others, who need have no knowledge of methods of diagnosis and treatment other than those of their respective cults, and who are therefore ignorant of their own limitations. In most states, the legalized cults are the sole judges of the qualifications of their own members.

PROPOSED REMEDIES FOR PRESENT CONDITIONS

Abolition of Cult Practice.—The cults referred to—sanipractic, chiropractic, osteopathy and naturopathy—are, however, so firmly entrenched by

law that it is impossible to protect the public against them by any direct attack. To forbid practice according to the dogmas of such cults would deprive a large number of men and women of their means of livelihood. Cult practitioners lack the premedical education necessary to enable them to enter medical schools to qualify for the non-sectarian practice of medicine. Probably few of them could afford to sacrifice four years or more to obtain the degree of doctor of medicine and licenses to practice medicine. Moreover the exclusion of cultists from practice would destroy the value of the cult colleges and deprive the faculties of such colleges of their prestige and emoluments. It would be, therefore, an insuperable task to exclude cultists from the practice of the healing art according to their respective dogmas.

Absorption of Cults by Non-sectarian Practitioners. — It has been proposed that cultists of all kinds be absorbed into the body of non-sectarian medical practitioners; that the slate be wiped clean, and that we begin all over again in the hope of keeping dogma out of the practice of the healing art hereafter. Such a process of absorption might raise the standards of some of the honest and more intelligent cult practitioners, but it would certainly tend to degrade the resulting conglomerate mass of practitioners generally. Moreover, there is no reason to believe that if to-morrow every cultist were by law converted into a nominally non-sectarian practitioner, new cults would not spring up. Cults have gained their present proportions because of the possibilities they afford for evading the requirements of medical practice acts, quite as much as because of any sincere belief in the dogmas around which they rally. So long as

there are laws excluding some persons from the practice of the healing arts, the wits of dreamers and of crooks will be busy devising new dogmas and organizing new cults whereby to evade such requirements. To give cultist practitioners such unearned privileges and dignity as would result from their absorption into the ranks of non-sectarian practitioners would merely produce repeated crops of cults and cultists and a repetition of the absorption process from time to time, indefinitely.

If the abolition of the cults is impossible and the absorption of the cultist into the body of non-sectarian practitioners inexpedient, a middle ground must be sought. It seems to have been found in the "basic science acts," such as have been passed in Connecticut and Wisconsin.

BASIC SCIENCE ACTS

Basic science acts recognize the existence of various cults and of the dogmas about which they have been organized. They recognize also, however, that non-sectarian practice and cult practice are based on fundamental sciences with which dogma has and can have nothing to do — such sciences, for instance, as anatomy, physiology, chemistry, bacteriology and pathology. Basic science acts, therefore, ignore all dogma and fix for all practitioners a uniform minimum standard in the sciences named.

To avoid the prejudices of cultists against examinations by non-sectarian boards and the distrust of non-sectarian practitioners in the ability of the cultists to conduct adequate examinations even in the fundamental sciences, basic science laws provide that the board shall be made up of persons not engaged in

the practice of the healing arts. They overcome existing differences in the standards of preprofessional education by allowing even high school graduates to be examined in the basic sciences. Persons who pass the examinations held by the basic science board are given certificates to show that fact. Such certificates, however, do not entitle them to practice in any way; they merely authorize their admittance, on the compliance with other necessary conditions, to examination by any one of the several professional examining boards the certificate may elect. Without a certificate no applicant can be examined professionally. However, the certificate alone does not entitle him to appear for examination before any professional board; each board may impose such further requirements as the laws of the state authorize. The medical examining board may require evidence of at least two years of college work, of four years of study in a medical college and of one year of hospital experience, before admitting the applicant to examination. The chiropractic examining board, however, may be satisfied to accept the certificate of the basic science board as evidence of adequate preprofessional education—graduation by a high school—and insist on evidence of a graduation by a chiropractic college after not less than eighteen months of study. Other boards are at liberty similarly to apply their own standards to applicants seeking licenses from them. Every board is at liberty to accept as adequate the examination given by the basic science board in the fundamental sciences or to re-examine the applicant on those sciences.

The reasonableness and fairness of the plan outlined is obvious. It recog-

nizes that a certain knowledge of anatomy, physiology, chemistry, bacteriology and pathology is at the basis of all diagnosis and treatment whatever. It recognizes that the possession of such knowledge by all practitioners is necessary for the safety of the public. It ignores all differences of opinion among practitioners as to methods of diagnosis and treatment and sets up a non-professional board, representing the public, to determine the fundamental fitness of all would-be practitioners. Such candidates as this non-sectarian board has determined to be fit, and no others, are permitted to appear before the professional examining boards. The professional boards retain their present function of determining the fitness of the applicant to practice the particular method of healing professed by him. The method comes as near as any plan that has yet been offered to establishing a single standard for all who practice the healing arts in those states having independent sectarian boards. How far it is applicable to states having mixed boards depends on the organization and methods of such boards.

To facilitate a study of the basic science law and its adoption where deemed desirable, the Bureau of Legal Medicine and Legislation has prepared the draft of such a law and submits it herewith. The draft is susceptible of modification to meet the needs of any particular state and the ideas of those who seek to promote such legislation in any state. The draft is not offered as the last word in basic science laws. On the contrary, the Bureau will welcome criticisms by state medical associations, county medical societies, medical examining and licensing boards and the medical profession generally. Through

such criticisms it will be possible to perfect a bill that will represent the consensus of medical opinion throughout the country.

DRAFT OF PROPOSED BASIC SCIENCE ACT

Title. An act to establish a state board of examiners in the basic sciences underlying the practice of the healing arts, to provide for its organization and powers, to provide that certification by such board be a prerequisite to eligibility for examination for license to practice the healing arts and to define healing arts.

NOTE.—In some states the constitutions require that the title of an act express the purpose and contents of the act. The title set forth above, will, it is believed, conform to that requirement.

Enacting Clause. The enacting clause should follow the form customary in the state.

SECTION 1.—*Basic Science Certificate Required.* No person shall be eligible for examination or permitted to take an examination for a license to practice the healing art or any branch thereof, or granted any such license, unless he has presented to the licensing board or officer empowered to issue such a license, a certificate of ability in anatomy, physiology, chemistry, bacteriology, pathology, diagnosis and hygiene (hereinafter referred to as the basic sciences), issued by the state board of examiners in the basic sciences.

NOTE.—The sciences named are those that may be fairly said to have the same implications, whether the practitioner proposes to practice non-sectarian medicine or to follow the dogma of some cult. Whatever may be said of separate licensing boards for the non-sectarian practitioner and the cultists, there seems to be no valid argument against a uniform examination in the basic sciences, particularly if the examination is conducted, as is here proposed, by persons who are not active practitioners of the healing art. The

number of branches named can be reduced, of course, to meet the views of the profession in individual states, but before determining to reduce the number of branches, careful consideration should be given to the possible effect of such reduction on reciprocity.

SECTION 2.—*The Healing Art Defined.* For the purposes of this act, any license authorizing the licentiate to offer or undertake to diagnose, treat, operate on or prescribe for any human pain, injury, disease, deformity or physical or mental condition is a license to practice the healing art.

NOTE.—The purpose of this definition is to bring within the scope of this act all licenses to practice medicine, osteopathy, chiropractic, naturopathy, sanipractic and other modes of healing or attempted healing. The definition here given is broad enough to cover dentists, midwives, nurses and optometrists, but a later provision excepts them from the operation of the act.

SECTION 3.—*Board of Examiners in the Basic Sciences: Appointment and Personnel.* The governor shall appoint a state board of examiners in the basic sciences (hereinafter referred to as the board), consisting of five members, who shall be appointed one for one year, one for two years, one for three years, one for four years and one for five years, from the dates of their respective appointments. On the expiration of the term of any member, the governor shall fill the vacancy by appointment for a term of five years. On the death, resignation or removal of any member, the governor shall fill the vacancy by appointment for the unexpired portion of the term. Every member shall serve until his successor is appointed and qualified. The members of the board shall be selected because of their knowledge of the basic sciences aforesaid. No member of the board shall be actively engaged in the practice of the healing arts or any branch thereof.

NOTE.—This section aims at the creation of an examining board in which, by reason of the overlapping of the terms of members, there will be a continuity of policy and administration. No direct prohibition has been placed on the appointment of physicians, osteopaths, chiropractors or other cultists, except that the appointee shall not be in active practice. It has been proposed to limit the appointments of members of basic science boards to members of faculties of approved universities and colleges. It has been proposed, too, to forbid the appointment of any one having any connection with any school teaching the healing art in any form, or any one interested in any such school. The provision here made leaves to the Governor the determination of the advisability of appointments within the classes just named. So far as the medical profession in any state is concerned, it should certainly be able to bring enough influence to bear on the governor to see that the rights of non-sectarian medicine are not infringed in making appointments.

SECTION 4.—*Organization of Board: Election of Officers, Seal, Rules, Compensation.* The board shall meet and organize as soon as practicable after appointment. It shall have power to elect officers, to adopt a seal, and to make such rules as it deems expedient to carry this act into effect. The board shall keep a record of its proceedings, which shall be prima facie evidence of all matters contained therein. Each member of the board shall receive — dollars per diem and actual expenses, when actively engaged in the discharge of his duties. The compensation of the members and other expenses of the board shall be paid out of the fees received from applicants, but this is not to be construed as preventing appropriations to cover deficits. The treasurer of the board shall give such bond, running in favor of the state, as the state treasurer shall determine. The office of the board shall be in the state capitol, and quarters for such office shall be assigned in the capitol building or any other building occupied by the state government.

SECTION 5.—*Fees Payable by Applicants.* The fee for examination by the board shall be — dollars. The fee for re-examination within any twelve month period as hereinafter provided shall be — dollars, but the fee for re-examination after the expiration of twelve months shall be the same as the original fee. The fee for the issue of a certificate by authority of reciprocity, on the basis of qualifications as determined by the proper agency of some other state, shall be — dollars. All fees shall be paid to the board by the applicant at the time of filing application. The board shall pay all money received as fees into the state treasury, to be placed in a special fund to the credit of the board. The treasurer shall pay out of such fund all expenses incurred by the board, on vouchers signed by the president and the secretary of the board.

SECTION 6.—*Examinations.* The board shall conduct examinations at such times and places as it deems best. Every applicant, except as hereinafter provided, shall be examined to determine his knowledge, ability and skill in the basic sciences. The examination shall be conducted in writing, but may be supplemented by an oral examination, and if practicable shall be supplemented by examination in the laboratory, dissecting room and dispensary, and at the bedside. If the applicant received a credit of 75 per cent. or more in each of the basic sciences, he shall be considered as having passed the examination. If the applicant receives less than 75 per cent. in one subject and receives 75 per cent. or more in each of the remaining subjects, he shall be allowed a re-examination at the examination next ensuing, on application and the payment

of the prescribed fee; but he shall be required to be re-examined in all branches. If the applicant shall receive less than 75 per cent. in more than one subject, he shall not be re-examined within the period of one year next following his original examination, nor unless he presents proof satisfactory to the board of additional study in the basic sciences sufficient to justify re-examination.

SECTION 7.—*Requirements for Certificate.* No certificate shall be issued by the state board of examiners in the basic sciences unless the person applying for a certificate submits evidence satisfactory to the board: (1) that he is not less than twenty-one years of age; (2) that he is a person of good moral character; (3) that he was graduated by an accredited high school or school of similar grade, or possessed educational qualifications equivalent to those required for graduation by such an accredited high school, before he began the study of the healing arts, and (4) that he has a comprehensive knowledge of the basic sciences as shown by passing the examination given by the board, as by this act required.

NOTE.—No evidence is required of the applicant of the extent and nature of his knowledge of the basic sciences. These are to be determined by the board by examination. The professional licensing board to which the applicant must subsequently apply for his license to practice is to be at liberty, it is proposed, to accept the findings of the state board of examiners in the basic sciences with respect to the proficiency of the applicant in those sciences, or to re-examine the applicant in those sciences on its own account.

SECTION 8.—*Reciprocity.* The state board of examiners in the basic sciences may in its discretion waive the examination required by section 7, when proof satisfactory to the board is submitted, showing that the applicant has

passed the examination in the basic sciences before a board of examiners in the basic sciences or a board authorized to issue licenses to practice the healing art, in another state, when the requirements of that state are, in the opinion of the board, not less than those provided by this act. The provisions of this section shall apply only to examinations conducted by the boards or officers of states that grant like exemption from examination in the basic sciences to persons granted certificates by the board of this state.

SECTION 9.—*Appeal from Board's Decision.* Any applicant who has been denied examination by the board may within thirty days after such denial appeal to the ——— court for the county in which the board has its office; and such court shall on such appeal inquire into the cause of such denial. If in the opinion of the court admission to examination was refused without just cause, the court may order the board to examine the applicant. Notice of an appeal from the denial of the board of the right to examination may be served on any member of the board by leaving with him or with any adult member of his staff or household, at his usual place of business or abode, an attested copy thereof within thirty days after said board has notified the applicant of its refusal to examine him. Hearings of such appeals shall proceed in accordance with such rules as the ——— court may determine.

NOTE.—An applicant unlawfully denied admission to examination would have the right without the foregoing provision to the aid of the courts in compelling the board to examine him. The fact that this provision is written into the law, however, will tend to show to those who may believe that they would be denied entrance to examination on

the basis of alleged preprofessional or professional education or on other technicality, that they may have their rights protected by the courts. The names of the courts to which appeals should be taken will vary in the different states.

SECTION 10. — *Certificates and Licenses Void.* Any basic science certificate and any license to practice the healing art or any branch thereof which is issued contrary to this act shall be void. A board which has issued a license by virtue of a void basic science certificate shall revoke or cancel such license. The procedure in such revocation or cancellation shall be in accordance with the provisions of the act under which such license was issued, for the cancellation or revocation of licenses generally. The certificate issued to any person by the state board of examiners in the basic sciences shall be automatically revoked by the revocation of any license issued to such person to practice the healing art or any branch thereof.

SECTION 11.—*Practice without Basic Science Certificate Forbidden.* Any person who shall practice the healing art or any branch thereof without having obtained a valid certificate from the state board of examiners in the basic sciences, except as otherwise authorized by this act, shall be fined not more than ——— dollars or imprisoned for not more than ——— days, or both, in the discretion of the judge.

NOTE.—The exception referred to in this section is governed by section 17 which provides that this act does not apply to dentists, nurses, midwives, optometrists and persons licensed to practice the healing arts or any branch thereof at the time this act is passed.

SECTION 12. — *Fraudulent Certificates Forbidden.* Any person who shall obtain or attempt to obtain a basic science certificate by any dishonest or fraudulent means, or who shall forge, counterfeit or fraudulently alter any

such certificate, shall be fined not more than ——— dollars, or imprisoned not more than ——— days, or both, in the discretion of the judge.

SECTION 13. — *Fraudulent Licenses Forbidden.* Any person who shall obtain or attempt to obtain a license to practice the healing art or any branch thereof from any board authorized to issue any such license, without presenting to said licensing board a valid certificate issued by the state board of examiners in the basic sciences, as in this act required, shall be fined not more than ——— dollars or imprisoned not more than ——— days, or both, in the discretion of the judge.

SECTION 14. — *Issue of Fraudulent Licenses Forbidden.* Any person who knowingly issues or participates in the issue of a license to practice the healing art or any branch thereof to any person who has not presented to the licensing board a valid certificate from the state board of medical examiners in the basic sciences, or any person who has presented to such licensing board any such certificate obtained by dishonesty or fraud, or any forged or counterfeit certificate, shall be fined not more than ——— dollars, or imprisoned not more than ——— days, or both, in the discretion of the judge.

SECTION 15.—*Fees Paid Unauthorized Practitioners Recoverable.* Any money paid out by any person as compensation for services rendered in the practice of the healing art or any branch thereof to any person not validly licensed to practice such healing art or branch, when the payer did not know that such person was not validly licensed so to practice, may be recovered by the person who has paid such money by a suit instituted within two years from

the date when such fee or compensation was paid.

NOTE.—One who practices the healing art or any branch thereof unlawfully cannot now obtain the aid of the courts in collecting money for his unlawful act. This section proposes merely to permit one who has innocently paid money for such unlawful services to recover it by suit.

SECTION 16. — *Enforcement.* The state board of examiners in the basic sciences and the various boards authorized to issue licenses to practice the healing art or any branch thereof shall investigate any supposed violation of this act and report to the proper county attorney all the causes that in the judgment of such board warrant prosecution. Every police officer, sheriff and peace officer shall investigate all supposed violations of this act and apprehend and arrest all violators thereof. It shall be the duty of the attorney-general and of the several county attorneys to prosecute violations of this act.

NOTE.—One difficulty with the enforcement of existing medical practice acts is the fact that the duty of enforcement is not clearly placed. The section set forth above places and distributes the duty in such a manner as to make many state and municipal agencies responsible, including those who are best situated to enforce the law, namely, police officers, sheriffs and peace officers generally.

SECTION 17.—*Exceptions.* This act shall not be construed as applying to dentists, nurses, midwives or optometrists, practicing within the limits of their respective callings; nor to other persons licensed to practice the healing art or any branch thereof in this state when this act takes effect; nor to persons specifically permitted by law to practice without licenses, practicing within the limits of the privileges thus granted to them.

SECTION 18. — *Saving Clause.* No

provision of this act shall be construed as repealing any statutory provision now in force at the time of its passage with reference to the requirements governing the issuing of licenses to practice the healing art or any branch thereof; but any board authorized to issue licenses to practice the healing art or any branch thereof may in its discretion accept certificates issued by the board of examiners in the basic sciences in lieu of examining applicants in such sciences or may continue to examine applicants in such sciences as heretofore. The unconstitutionality of any part of this act shall not be construed as invalidating any other part thereof.

SECTION 19.—*Short Title.* This act may be cited as "Basic Science Act, 19—."

SECTION 20.—*Date of Taking Effect.* This act shall take effect on — (date).

JOURNAL MAINE MEDICAL ASSOCIATION

At the Bar Harbor session, in June, 1909, the Maine Medical Association appropriated \$500.00, the estimated cost of printing the old TRANSACTIONS, to start a state medical journal. In so doing it received the small balance in the treasury of the Maine Academy of Science and Medicine and some 1,000 to 1,500 volumes of books in the library at the Maine Eye and Ear Infirmary as a nucleus for starting a Maine Medical Library.

The first issue of the JOURNAL appeared in December, 1909, and has never missed an issue during the past seventeen years, notwithstanding the fact that your editor was in the service during the brief period of the World

War. The library was catalogued and cross-indexed, so that it could become a circulating library, but the demands were so slight that all effort to keep it up to any standard was soon dropped. Some thought has been given to transferring it to the State Library at Augusta and seeking new life for it.

The JOURNAL functioned as the official organ of the Maine Medical Association, as well as the county societies. It was always served impartially and never been used for personal gain by its staff for printing personal papers, etc., and so it closes another year, having placed before the members all material of value submitted to the editorial staff which merited printing as part of record, thus being placed on file for reference at any time.

A few years ago, Dr. Joel Goldthwait and a few associates took over the *Boston Medical and Surgical Journal* and saw the possibilities of having a strong New England medical journal. He came to Portland to conference with your editor, and later another conference was held in Boston, and finally the proposition was submitted to the House of Delegates, with the recommendation that, when the *Boston Medical and Surgical Journal* would change its name to one not specifically designating any city or state in New England, Maine would consider some form of affiliation, and a standing committee was appointed, with power, as follows: The editor of the Maine JOURNAL, the six members of the Council, and the President and Secretary ex-officio members.

When the former owners of the *Boston Medical and Surgical Journal* relinquished their control, they incorporated one condition, viz.: that the JOURNAL should complete its 100th

year under its present name, so that all efforts toward a New England journal was held up until 1928.

Your editor then went to New Hampshire and Vermont, in an endeavor to create a tri-state medical journal, but was unable to convince the New Hampshire Medical Society that the benefits derived would be worth while, and now, after a lapse of a few years, the following proposition comes to us from Dr. Bowers, managing editor of the *Boston Medical and Surgical Journal*, after a conference with representatives of some of the other New England States, and it will require consideration at the June meeting of the House of Delegates, so that it is important that each delegate read carefully Dr. Bowers' letter.

March 30, 1927.

DR. BERTRAM BRYANT,
265 Hammond St.,
Bangor, Maine.

DEAR DR. BRYANT:—The committee in charge of the *Boston Medical and Surgical Journal* has been authorized to enter into arrangements with the several state medical societies of New England for the publication of such material as may be furnished by any given state society, not to exceed sixteen pages in any one month, such material to be incorporated in one issue per month, copies of which will be sent to the members of a society entering upon this agreement.

The *Boston Medical and Surgical Journal* will render this service for \$1.00 for the twelve copies sent to each member designated by the state society, and an additional charge for postage.

For example:

If a society sends in subscriptions for six hundred members, the cost to that

society would be for the total number of
copies furnished, \$600.

Mailing, \$2.00 per hundred per
issue, \$12.00 for the twelve issues. 144.

—
\$744.

The mailing expense may be less.
The charge will be the actual cost.

To such members as may want to
subscribe for the fifty-two copies, or one
year's subscription, an additional charge
of \$3.00 will be made, provided that
seventy-five or more members of any one
society so subscribe.

These charges are based on a study of
the actual cost of the Society and are
practically, so far as we can estimate,
about the net cost.

All matters which are of interest will
be discussed and explained if this gen-
eral plan seems to be attractive.

Formerly the Massachusetts Medical
Society bought and distributed copies
of each year issues to its members at a
price larger than that suggested above.

Since assuming ownership of the
Journal, the Society has enlarged it,
giving more than twenty-five per cent.
more reading matter, and has included
the so-called Cabot Case Records, which
formerly sold for \$8.00 per year. It is
planned to change the name of the
Journal next year to that of the *New
England Journal of Medicine*.

Co-operating societies are to be given
representation on the managing boards.

We will be pleased to hear from you.

Very truly yours,

(signed) WALTER P. BOWERS, M.D.,
Managing Editor.

Having founded and carried on the
JOURNAL for nearly eighteen years in
the interest of the physicians of Maine

as managing editor and editor-in-chief,
and as such responded to the call to serv-
ice on various boards and committees,
both of the medical societies and on lay
health organizations, your editor feels
that he has done his bit in the interest of
the profession of Maine, and looks for-
ward to some change which will relieve
him from his many duties. The pro-
posed *New England Medical and Sur-
gical Journal* will give to the physicians
of Maine a much larger and better
journal than it is possible to have as a
separate journal. On the other hand,
the cost to the Association will not be
any greater than our present JOURNAL.

F. Y. GILBERT, M. D.,
Editor-in-Chief.

REPORT OF COUNCILOR FOR FIRST DISTRICT.

I am very sorry that I have been un-
able to carry on the work of the council-
orship this year.

I have been ill all winter from effects
of "grippe," and it left me with severe
lumbago.

I have heard nothing this year from
the York County Medical Society.
Last week they had their first and only
meeting this year, at which Dr. Spald-
ing was present as my deputy. He also
visited the schools at Biddeford.

I enclose herewith the report of Dr.
Cummings, the Secretary of the
Cumberland Society.

During the year 1926 the Cumber-
land County Medical Association held
four meetings. The average attendance
at these meetings was sixty-eight. Each
meeting was preceded by a clinic given
by the essayist of the evening.

The first meeting was held in con-

junction with the New England Heart Association. The speakers were Drs. White, Levine, and Roby of Boston.

The second meeting was addressed by Dr. Palfrey, of Boston, on "Types of Dyspepsia."

The third meeting was addressed by Dr. Ayer, of Boston, on "The Clinical Value of Cerebrospinal Fluid Tests."

The fourth meeting was addressed by Dr. Osgood, of Boston, on "Low Backache."

The society finished the year with 196 members, 17 having been admitted during the year. Twenty-six changes in address were noted. Five died during the year.

REPORT OF COUNCILOR FOR SECOND DISTRICT.

I wish to report that I have visited the societies of this district (Androscoggin, Franklin and Oxford) to learn that they are having their usual meetings, which have been educational, instructive and profitable. Interest is being maintained.

JOHN STURGIS, M. D.,
Councilor.

REPORT OF COUNCILOR FOR THIRD DISTRICT.

Your Councilor has attended the usual secretaries' and officers' meetings during the year, and has also attended all other county meetings that he has received notice of.

Knox County is very prosperous and has held the usual six meetings during the last year. I have no knowledge of the other county societies.

NEIL A. FOGG, M. D.,
Councilor.

REPORT OF COUNCILOR FOR SIXTH DISTRICT.

As Councilor from the Sixth District, I beg to report that the three counties comprising this district have held regular stated meetings during the year.

The membership has held up well, and the physicians of this district are vitally interested in all that pertains to the practice of medicine.

A. K. SMITH,
Councilor.

REPORT OF LEGISLATIVE COMMITTEE.

No matters of special legislative concern have happened during the last year.

Your committee has been advised at all times by the Legal Bureau of the A. M. A. on medical measures introduced in Congress and on their progress.

Several neighboring states have sent reports on medical matters in their own Legislatures.

A sub-legislative committee was organized early this year in our own State Legislature. The committee was made up of three Representatives and three Senators. They did excellent work and furnished valuable assistance.

The members of your committee made several trips to the Legislature during the last winter and attended hearings.

There seems to be a tendency on the part of the sects to try to gain the legal right to practice medicine, surgery and obstetrics without the degree of M. D.

If this privilege is granted to one, it would be class legislation not to grant it to all.

Every sect asks for its own examining board, so, in reality, fitness to practice

the healing art would be decided by composite boards. This, in time, would reduce itself to absurdity. What Maine needs is one standard for all, one board of examiners. Maine should not tolerate any "easy way" to the practice of the healing art.

Signed,

L. P. GERRISH,
J. D. PHILLIPS,
MITCHELL,
Committee.

REPORT OF THE VENEREAL DISEASE COMMITTEE.

Believing that the venereal disease control work should receive the continued support and endorsement of the Maine Medical Association through educational work put out by the Committee on Venereal Diseases of the Maine Medical Association, we are preparing a new pamphlet to be given to the adolescent youth of Maine through their parents and teachers. It will be possible to get reduced prices on these pamphlets, so that they may be purchased in large quantities.

GEORGE H. COOMBS,
Chairman.

REPORT OF CANCER COMMITTEE.

The Cancer Committee, owing to the unfortunate death of its chairman, has not been able to carry on any active work during the year.

Dr. Marshall was a very active and enthusiastic worker in the campaign against cancer, and his loss in this field of endeavor will be greatly felt. It has not been possible for the remainder of

the committee to carry on his plans this year.

Respectfully,
H. E. THOMPSON,
MORTIMER WARREN,
Committee.

REPORT OF COMMITTEE ON HEALTH IN SCHOOLS.

As chairman of the Committee on Health in Schools, I wish to make the following report for the committee:

The various members of the committee have made the suggestions in this report.

Health conditions in schools are steadily improving. The state law requires that by September 1st sanitary toilets shall be installed in all school buildings. Many of the towns have already made the required changes or have made provisions for the change. A few still have not made any arrangements to comply with this law. In new school construction, unless they adopt plans already provided by the Educational Department, these plans must be sent to the State Commissioner of Education and State Commissioner of Health for approval, so that all new construction is provided with adequate ventilation, light and heat.

The hot school lunch is becoming more and more regarded as a necessity, and the number of schools adopting this have greatly increased. Classes in nutrition have greatly added to the instruction, well-being and health of the undernourished child. One of the committee suggests that first aid kits should be installed in all school buildings and more attention should be given as to the avoiding of accidents to children from

automobiles in our streets. Instruction should be given in the schools as to the safety of children going to and from school, especially in the rural districts when they are not transported by public conveyance. They should receive proper instruction as to the proper side of the road on which to walk, so as to avoid all possible chance of accidents.

Physical examination of all children entering school for the first time should be adopted in every school district, so that children may enter school in as perfect condition as possible, which will enable them to obtain the full benefits of the educational facilities offered them.

The communicable disease proposition is rather a critical one. The largest amount of communicable diseases in our children are spread in the schools because of carelessness of those in charge of the children. Many of these communicable diseases could be absolutely prevented if the teachers would be more alert as to the prodromal symptoms of these diseases, so that they could be removed from the schoolroom before they had affected the whole school. During the last winter, measles, whooping cough, chicken pox and mumps have been particularly prevalent among our school children, and many hours have been lost from school unnecessarily because of these diseases. The common cold causes more absence and loss of school hours than any other disease and is not regarded seriously enough by the parents and school officials.

Physicians of the state could greatly

aid in the reduction of communicable diseases if they would report promptly to the local health officer all cases which they are attending. We find that many of the physicians are exceedingly delinquent in reporting their communicable diseases to the local health officer.

Respectfully submitted,

C. F. KENDALL, M. D.,

Chairman.

REPORT OF THE COMMITTEE ON HOSPITALS.

So far as the members of the committee have been able to ascertain, the hospitals of the state are in a prosperous condition, and, under the stimulus and constructive criticism of the College of Surgeons, are constantly striving to become better.

That there is need of improvement there can be no doubt, since of approximately forty hospitals of the state only twelve are on the approved list of the College, and two of these are conditional.

Three hospitals have reached the standard requirements during the current year.

We believe our hospitals should function along two definite lines, viz.: First, render a prompt and efficient service to the public, and, second, act as an educational centre for not only members of their own staff, but for all the doctors who come in contact with the hospital service.

This cannot be done well with less than the minimum requirements of the College of Surgeons.

NURSE TRAINING SCHOOLS IN HOSPITALS

Accredited by State	Not Accredited	Total Schools	Total Beds	No. Schools Sending Data
31	3	34	3,786	34

Undergraduate Student Nurses

1st Year	2nd Year	3rd Year	Total Students	Graduates 1926	Students in Graduate Courses
262	217	218	697	162	6

State Requirements

High School Years	Nurse Training Months
2	24

HOSPITALS WITHOUT NURSE TRAINING SCHOOLS

No.	Beds
36	2,058

SIZE OF HOSPITALS HAVING NURSE TRAINING SCHOOLS

	5-19 Beds	20-39 Beds	40-99 Beds	100-499 Beds	500-1,000 Beds	Over 1,000 Beds	Totals
Schools	3	10	13	6	1	1	34
Students	21	90	308	246	21	11	697

TYPES OF HOSPITALS CONDUCTING NURSE TRAINING SCHOOLS

GENERAL			NERVOUS AND MENTAL			TUBERCULOSIS			ALL OTHER HOSPITALS			TOTALS		
No. Train- ing Schools	Total Stu- dents	Grad- uates Last Year	No. Train- ing Schools	Total Stu- dents	Grad- uates Last Year	No. Train- ing Schools	Total Stu- dents	Grad- uates Last Year	No. Train- ing Schools	Total Stu- dents	Grad- uates Last Year	No. Train- ing Schools	Total Stu- dents	Grad- uates Last Year
30	631	149	2	32	4				2	34	9	34	697	162

SIZE OF NURSE TRAINING SCHOOLS IN MAINE

Number of Nurse Training Schools Having

1-9 Students	10-19 Students	20-29 Students	30-39 Students	40-49 Students	50-74 Students
10	11	5	3	2	3

Maine has not nurse training schools in unethical and irregular hospitals.

REQUIREMENTS OF NURSE TRAINING SCHOOLS

*Age Limit**Preliminary Education—High School*

18 Years	19 Years	Over 19 Years	4 Years	3 Years	2 Years
18	14	2	11		23

NURSE TRAINING SCHOOLS OFFERING GRADUATE COURSES

Dr. Leighton's Private Maternity Hospital

NUMBER OF NURSES REGISTERED BY STATE BOARDS OF NURSE EXAMINERS

No. Registered to Jan. 1, 1924	No. Registered in 1924	No. Registered in 1925	No. Registered in 1926	Total No. Registered to Jan. 1, 1927
1,588	149	201	127	2,065

REGISTERED NURSES IN PROPORTION TO POPULATION

	Estimated Population July 1, 1926	Nurses by States	Nurses per 10,000 Population
Maine	790,000	2,065	26.1
New York (highest percentage)	11,304,000	118,621	104.9
Georgia	3,139,000	2,226	7.1
Mississippi (lowest percentages)	1,790,000	1,276	7.1

Maine has no hospitals related to undergraduate medical education.

NAMES OF HOSPITALS, WHERE LOCATED, ETC.

Name of Hospital	Where Located	Beds	Years High Required	Enroll- ment	Graduated Last Year	Accredited by State
Augusta General Hospital	Augusta	100	2	26	3	Yes
Augusta State Hospital	Augusta	1,200	4	11	—	Yes
Bangor State Hospital	Bangor	780	2	21	4	Yes
Eastern Maine General Hospital	Bangor	130	4	61	13	Yes
Paine Private Hospital	Bangor	22	4	9	2	Yes
Bath City Hospital	Bath	50	2	16	5	Yes
Bradbury Memorial Hospital	Belfast	21	4	3	—	Yes
Waldo County General Hospital	Belfast	18	4	10	4	Yes
Trull Hospital	Biddeford	40	2	17	1	Yes
Webber Hospital	Biddeford	50	2	13	1	Yes
Cary Memorial Hospital	Caribou	44	2	12	New	Yes
Calais Hospital	Calais	52	2	27	8	Yes
Plummer Memorial Hospital	Dexter	20	4	11	3	Yes
Community Hospital	Fort Fairfield	20	4	8	1	No
Gardiner General Hospital	Gardiner	23	2	5	2	Yes
Charles A. Dean Hospital	Greenville Jct.	23	2	4	1	Yes
Aroostook Hospital	Houlton	35	2	21	2	Yes
Madigan Memorial Hospital	Houlton	50	2	17	5	Yes
Central Maine General Hospital	Lewiston	110	2	42	11	Yes
St. Mary's General Hospital	Lewiston	110	2	32	14	Yes
Children's Hospital	Portland	70	2	28	5	Yes
Dr. Leighton's Hospital	Portland	14	4	6	4	No
Maine Eye and Ear Infirmary	Portland	90	2	60	17	Yes
Maine General Hospital	Portland	160	4	52	21	Yes
Queen's Hospital	Portland	60	2	6	1	Yes
St. Barnabas Hospital	Portland	75	4	45	10	Yes
State Street Hospital	Portland	50	2	32	9	Yes
Presque Isle General Hospital	Presque Isle	50	2	19	5	Yes
Knox County General Hospital	Rockland	38	2	15	4	Yes
Rumford Community Hospital	Rumford	84	2	16	—	Yes
Kennebec Valley Hospital	Skowhegan	30	4	8	2	Yes
Elm City Hospital	Waterville	20	2	6	1	Yes
Sisters' Hospital	Waterville	100	2	33	3	Yes
St. Andrew's Hospital	W. Boothbay Harb.	17	2	5	—	No

Respectfully submitted,

CHARLES H. YOUNG,

CARL W. ROBINSON.

RALPH W. WAKEFIELD, *Chairman.*

REPORT OF COMMITTEE ON PUBLIC RELATIONS.

Your Committee on Public Relations beg leave to submit the following brief report:

During the year your committee has held two meetings, both in conjunction with the meeting of the Officers and Council of the Maine Medical Asso-

ciation, one at Bangor, the other in Portland.

At the Bangor meeting your committee had the privilege of meeting with the representatives of some of the large industrial insurance companies, and in a frank discussion of the differences arising between the companies and attending physicians a much better under-

standing was reached than heretofore.

At the Portland meeting the various activities of the Maine Public Health Association were endorsed and the program of this Association for 1927 approved, and closer co-operation between the Maine Public Health Association and Public Health Department of the state advised. Your committee also strongly favored the suggestion of Commissioner Kendall, of the State Health Department, relative to a conference between the representatives of the various state health units and his department to discuss immunization against diphtheria. Dr. Kendall, at this meeting, also outlined the duties of public health and school nurses, which received the approval of your committee.

In connection with public health work, mention probably ought also to be made of the Nutritional Institute to be held in Aroostook County by Dr. Wm. R. P. Emerson, of Boston. This Institute will be held for two weeks at Caribou, beginning May 9th. and for a like period at Houlton, beginning May 16th. This work is under the auspices of the Aroostook County Medical Society and the Aroostook County Anti Tuberculosis Association.

In closing, your committee desires to express its gratitude to the medical members of the last Legislature for their efforts in warding off adverse medical legislation.

Respectfully submitted,
F. W. MANN, M. D.,
Chairman.

REPORT OF THE NECROLOGIST.

Anson Morrell Andrews, Gray.
William Elihu Baxter, formerly Bangor.
Joseph Louville Bennett, Bridgton.

Lendall Hall Brown, North Berwick.
Anson Augustus Cobb, Auburn.
Oscar Charles Sanborn Davies, Augusta.
Charles Dole Edmunds, Bangor.
Walter Edward Elwell, Portland.
Frank Herbert Jordan, formerly South Portland.
Phillip Prescott Lewis, Gorham.
William Jerris Lewis, Freeport.
Arthur Talbot Lincoln, Dennyville.
Lucien Lupien, Westbrook.
Nathan Mason Marshall, Portland.
Elisha Atwood McCollister, Lewiston and Mechanic Falls.
Joseph Harvey Murphy, Dexter.
Hanson Crafts Pattengill, Fairfield.
Clarence Arden Peasley, Bath.
James Richardson Nelson Smith, Milltown.
Frank Winchester Snell, East Machias.
Frederick Charles Thayer, Waterville.
Charles Frederick Traynor, Biddeford.
Charles Emery Williams, Houlton.

An unusual number of members have died during the year; the largest in many years. Death by accident occurred once; following urgent operations, four times; while most of the others died from heart disease. One of our most prominent losses was that of Dr. Thayer, of Waterville, a former President, while Dr. Elwell was at one time a national character. Dr. Marshall was our President-elect, and his loss will be felt in many ways during the current year. Dr. Bennett was an aged and admired country practitioner and Dr. Peaslee's presence in the present Legislature would have been of great advantage to us in the prevention of pernicious legislation. The Rev. Dr. Snell, of East Machias, deserves mention especially, as holding the unique position in Maine medical history for many years of a clergyman and physician alike. Dr. Andrews was

killed in a motor car accident, and the place once filled by Dr. Williams in Aroostook will not soon be filled. Perhaps we shall miss, most of all, the cheerful presence of Dr. Traynor, of Biddeford.

All of the members who have died will be annotated in the *JOURNAL* in due season, or have already been so treated. We are sorry that we cannot present half-tones of all the members, for it is our opinion that portraits add to the remembrance of the dead more forcefully than words.

One or two of the men mentioned had removed from Maine before their deaths, but their influence remains amongst us and so deserves mention. The greatest study of mankind is that of the character and deeds of those going before us, because from their successes or failures we learn lessons of untold usefulness to all who take an interest in reading their careers.

JAMES A. SPALDING,
Necrologist.

PROGRAM OF MEETING OF THE MAINE MEDICAL ASSOCIATION

At Portland, June 13th, 14th and 15th

MONDAY, JUNE 13TH

8.00 P. M. The Eastland.
Meeting of House of Delegates.

TUESDAY, JUNE 14TH

9.00 A. M. Maine Eye and Ear Infirmary.
Symposium on Metabolic Diseases.
Clinic:

Dr. F. M. Allen, of New York.
D. G. G. Duncan, of Philadelphia.
Dr. E. R. Blaisdell, of Portland.

Remarks on "The Practical Treatment of Diabetes and Hypertension," by Dr. Blaisdell

2.00 P. M. The Eastland.

Prayer,	the Very Reverend J. Arthur Glasier
Address of Welcome,	Mr. Philip J. Deering
President's Address,	Dr. L. P. Gerrish

Continuation of Symposium on Metabolic Diseases.

"Some Early Retinal Changes of Metabolic Disease,"
illustrated by pictures, Dr. H. F. Hill, of Waterville
"Classification of Kidney Disease,"
Dr. G. G. Duncan, of Philadelphia
"Recent Advances in the Treatment of Metabolic Disorders,"
Dr. F. M. Allen, of New York

7.00 P. M. The Eastland.

Banquet.

Address,

Dr. Rock Sleyster

Trustee of A. M. A.

Dancing in the Ball Room.

WEDNESDAY, JUNE 15th

8.00 A. M. Maine General Hospital.

Cardiac Clinic.

Remarks on "Heart Failure,"

by Dr. E. H. Drake

10.00 A. M. The Eastland.

Public Health,

Dr. E. D. Merrill, of Dover-Foxcroft

11.00 A. M. Surgical Paper.

2.00 P. M. "Carcinoma of the Rectum,"

Dr. D. F. Jones, of Boston

3.00 P. M. "Endoscopy in Diseases of the Air and Food Passages,"

Dr. J. L. Johnson, of Bangor

3.30 P. M. "Roentgenological Aspects of Diseases of the Air and Food Passages,"

Dr. E. B. Ames, of Bangor

4.00 P. M. Election of Officers.

ENTERTAINMENT FOR LADIES

Matinee at Keith's Theatre at 2.15—New Stock Company. (Secure tickets at registration desk.)

Dance following the annual banquet Tuesday night in the new Eastland Ball Room. (Dick Lewis' Society Orchestra.)

Coffee at the Purpoosduck Club at 11.00 A. M. Wednesday.

1. Arrangements will be made for golf at some of the local clubs.

2. The Eye and Ear Section will meet in Portland, June 25.

The Essayist will be Dr. Conrad Berens, Jr., New York City.

Election of Officers.

(*Daylight Saving Time.*)

NEW AND NON-OFFICIAL REMEDIES.

Abbott Laboratories:

Tablets Triturates Ephedrine Hydrochloride—Abbott, $\frac{1}{2}$ grain.

Capsules Ephedrine Hydrochloride Abbott, $\frac{3}{4}$ grain.

Ephedrine Hydrochloride Solution—Abbott, 3%.

Parke, Davis & Co.:

Glaseptic Ampoules Mercury Salicylate—P. D. & Co., 0.065 Gm. (1 grain).

Glaseptic Ampoules Mercury Salicylate—P. D. & Co., 0.13 Gm. (2 grains).

Glaseptic Ampoules Mercury Succinimide—P. D. & Co., 0.01 Gm. ($\frac{1}{6}$ grain).

Sigurd E. Roll:

Viking Palatable Cod Liver Oil.

Swan-Meyers Co.:

Ephedrine Hydrochloride—Swan-Meyers:

Capsules Ephedrine Hydrochloride—Swan-Meyers, 0.0324 Gm. ($\frac{1}{2}$ grain).

United States Standard Products Co.:

Rabies Vaccine—U. S. S. P. (Semple Method).

THE JOURNAL

OF THE

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The Journal assumes no responsibility for opinions expressed by the authors.

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No. 6

***MALIGNANT DISEASE INVOLVING THE ESOPHAGUS, WITH REPORTS OF SEVEN CASES**

By GEORGE O. CUMMINGS, M. D., 47 Deering St., Portland, Me.

According to Chevalier Jackson, cancer of the esophagus is of more frequent occurrence than is commonly thought. In the male it usually develops during the fourth or fifth decades of life. In the female it comes on earlier and tends to run a more protracted course. The middle third of the esophagus is most frequently involved in the male, and next the middle third. In the female, however, the upper third is more apt to be the site of the growth.

Malignant disease of the esophagus is rarely seen early because of mildness, or absence of symptoms. Dysphagia, the chief complaint of the patient, is often ignored by him until he is unable to swallow any but liquid food. At this point it is to be remembered that well masticated food may be swallowed through a lumen of five millimeters. When stenosis has progressed to the degree that food and fluid intake becomes limited, body wasting and cachexia occur. As the disease pro-

gresses, erosion and ulceration may give rise to regurgitated matter stained with blood and to foul odor. Pain occurs late in the disease, and is deep seated and boring in character, being referred to the upper spine. Occasionally the recurrent laryngeal nerves are involved, affecting the larynx.

Approximately 70% of stenoses of the esophagus in adults are due to malignant disease. These are to be differentiated from syphilitic and tubercular lesions, aneurysms of the aorta, foreign bodies, and spasmodic conditions, which later may have their origin from neoplastic growths. Very rarely benign, polypoid, or papilomatous tumors occur.

At present, treatment offers little. Dilatation of the accompanying stricture is a dangerous procedure, as death may follow rupture of the esophagus. Surgery may offer relief in certain early cases, although this organ bears surgery less well than any other viscous. Progress of the disease has been delayed by

radium, but no cures have been reported. This may also be supplemented by deep X-ray therapy. Intubation of the stricture has been advocated in the past, fallen into disuse, and is now being tried again, although it is not a generally accepted procedure.

Gastrostomy is always indicated as the disease progresses. It should be performed while the patient is in good condition, before there is any real water starvation.

Diagnosis may be assumed from history. Fluoroscopy and X-ray pictures, after ingestion of a bismuth mixture may locate the site of stricture. It remains for the esophagoscopist to see and recognize the cause of the stricture and dysphagia. The possibility of a non-opaque foreign body as a cause of food stoppage must be borne in mind, and is one real reason for esophagoscopy in cases of dysphagia.

W. W., age 42, entered the hospital February 2, 1925. Four months before admittance he began to have difficulty in swallowing, which constantly increased until, when he was hospitalized, he could take but liquids. At the last of this period he began to have some pain on swallowing. His past history was essentially negative, as was his physical examination, except some dullness at the left base, with decrease diaphragmatic movement. X-ray revealed a stricture of the esophagus at the seventh thoracic vertebra, and showed a cloudiness of the left base with impairment of motion of the diaphragm. On February 20, 1925, a gastrostomy was performed, while the patient was in quite good general condition. This operation gave him comfort at first, while the rest to his esophagus resulted in his being able to take food by mouth again. This relief lasted

but for a short time, and even feeding him through the gastrostomy wound gave him distress. He gradually weakened and died about four months from the onset of his symptoms.

H. M., aged 64, entered the hospital August 31, 1925. In April he had influenza and was sick in bed for four weeks; in May he began to have a cough and to be hoarse; in June (six weeks from the onset) he began to have difficulty in swallowing; this so increased that by the last of July he could take liquids only. His general physical examination was negative. He had lost ten pounds in weight in the last three months. X-ray showed an obstruction to the esophagus at about the level of the top of the sternum. Palpation of his throat showed enlarged stony glands down the left sterno-mastoid, and an apparent growth just below the cricoid cartilage and about one and a half inches above the sternum. Examination with a throat mirror showed that the left side of his larynx was paralyzed, due to the involvement of the left recurrent laryngeal nerve. The piriform sinus on that side was filled with saliva. (This is Jackson's sign of esophageal obstruction.) A gastrostomy was performed on September 9th. He remained in the hospital until the 20th and then returned home to die in eight months after the onset of disease.

P. V., aged 59, entered the hospital August 12, 1925. Three weeks before his admission he complained of a sore throat, but did not think much of it. A few days later he began to have difficulty in swallowing, and a few days later vomited up three or four ounces of blood. He had no pain. He had lost fifteen or twenty pounds in weight in the last year. His general physical exami-

nation was negative. His larynx was negative. Fluoroscopy and X-ray reveal a stricture at about the level of the clavicles. Esophagoscopy showed a growth protruding from the posterior wall and practically obliterating its lumen. There was some superficial ulceration and bleeding. On September 9th a gastrostomy was made while he was yet in good condition. This gave a certain amount of relief. He grew gradually weaker and complained more and more of subternal pain, finally dying about three months after the onset of his symptoms.

W. S. T., aged 65, was first seen in February, 1926. Five weeks before he began to have difficulty in swallowing. He was in good health and had no difficulty in breathing, nor had he had any pain. Well chewed and liquid foods passed down easily. His general physical examination was negative. There was no palpable growth in his throat. His larynx was normal, but the left piriform sinus was filled with saliva. Fluoroscopy was interesting in that bismuth in milk passed down so quickly that no obstruction was observed. The bismuth was then mixed with oatmeal and this held up a short time at the entrance to the chest, but passed quickly down. A capsule filled with bismuth was then tried. This hesitated for a while at the cricopharyngeus, and then again at the entrance to the chest, before passing along. Esophagoscopy revealed a growth 23 cm. from his upper teeth. There was a whitish area on one side of the lumen and a red lumpy growth on the opposite side. As this seemed an early case, he was advised to go to the Bronchoscopic Clinic in Philadelphia. However, he elected to go to Boston, where my diagnosis was confirmed, and where he was

told that, while they felt that radium might prolong his life, in their opinion the growth was too far advanced to hope for much more.

C. E. B., aged 70, was first seen in April, 1924. Since the preceding July he had had difficulty in swallowing, which had been gradually increasing. Although he has had no pain, his weight has been decreasing. He has had difficulty in breathing, with occasional strangling spells. He had one in my office, and I fully expected him to die. Physical examination showed an emaciated man with the white waxen appearance of malignant disease. His general examination was, however, essentially negative. Examination with a laryngeal mirror showed that the whole larynx was pushed forward by a tumor arising from the posterior wall of the esophagus obstructing the right piriform sinus. This was of even contour, slightly red, but not ulcerated. His larynx moved normally. Choking spells were due to an overflow from the piriform sinuses. The patient was advised to have a gastrostomy performed under a local anesthetic. He decided to wait. In another city this operation was performed about six weeks after I first saw him, whether under a local anesthesia or not I do not know. In any event, he died either during or shortly after the operation. He lived eleven months after the onset of his symptoms.

H. B., aged 53, was first seen the latter part of July, 1923. She had complained of difficulty in swallowing for some three months. She had noticed a sense of constriction about her throat at the level of the thyroid. She had no difficulty in breathing nor any pain. Physical examination was otherwise negative, except that the thyroid gland was stony

in hardness, although not noticeably enlarged. Laryngeal examination revealed perfect function. Apparently the diseased thyroid pressed against the softer esophagus, causing some obstruction to its lumen, while the harder trachea remained unaffected. She died from the cachexia of cancer, aided somewhat by the narrowing of the esophagus with the limiting of the food that this entailed. She died about five months after the onset of her symptoms.

G. L., aged 74, entered the hospital December 1, 1926. He was in perfect health until eight weeks before, when without previous sore throat, coryza, or exposure to wet or cold, he became so hoarse that he could not speak out loud. About two and a half weeks before admission he had difficulty in swallowing solid food. A troublesome cough then developed, and a definite dyspnoea set in a few days before hospitalization. His general examination

showed no aneurysm or other pathology, except that there was a small mass below his larynx on the left side. Laryngeal examination revealed fluid in both piriform and sinuses and a partial immobility of the right cord, apparently caused by indirect pressure rather than nerve involvement. There was no evidence of intrinsic laryngeal growth. The glottic chink was unobstructed but there was a swelling on the party wall between the trachea and esophagus. Fluoroscopy was in vain, as he was unable to swallow bismuth mixtures. I hesitated to do an esophagoscopy in so desperate a case. If he would breathe, a tracheotomy would soon be necessary. If he would eat, a gastrostomy would soon be called for. I believe an esophagoscopy should have been done to eliminate the possibility of a non-opaque foreign body. He relieved us of our responsibility by returning home to die nine weeks from the onset of his illness.

*PIERRE CHARLES ALEXANDRE LOUIS

By DR. WARREN E. KERSHNER

In the midst of modern medical practice, and in securing a modern medical education, we often lose sight of some of the influences which have molded our medical development, both in training and practice. We, too, lose sight of the men who contributed to the development of modern medical instruction and practice.

Prior to about 1825 medicine was a personal matter, and its development lay more with the ability of the indi-

vidual teachers to infuse their pupils with a belief in their personal theories and mode of treatment than upon a gradual development of concerted teachings or study of basic principles everywhere and by everybody alike. The individual enthusiasm of the master put over a vast number of theories, philosophy and systems, some having much that was good, others little which has survived the years since. Little do we realize, at the present time, the dis-

*Read at the meeting of the Bath Medical Club, December 15, 1926.

organized status of medicine and medical teaching of that day.

Late years have found the physician growing more and more impersonal, more subduing his personal interests to the good of the greatest number, and, as it should be, subordinating himself and his work to the cause of humanity. This is demonstrated by the increasing numbers of medical men who are promoting the development of preventive medicine, and by the same token diminishing the material reward for their service, at the same time rendering a constantly increasing amount of service free. To quote Harvey Cushing: "Dr. Pound, of Cure Lane, is superseded by his young disciple, Dr. Ounce, of Prevention Street."

The century beginning with the year 1800 saw medical science and teaching in the hands of theorists. The "nature philosophy" held forth in Germany. In France the fad of the day was that all disease was due to localized irritation to some viscus or organ, while the English were teaching that everything was a neurosis. All these, and many more, failed to account for the healing power of nature, to the end that active abortive measures were used in practically all conditions. Until the publication of Virchow's "Cellular Pathology," in 1858, the French had made most of the advances in medical thought and teachings. France and England have continued to excel in the organization of hospitals and clinical teaching. Since Virchow's epic publication, the foundation upon which medicine is built has been ably and successfully taught by

Germany. With the discard of the metaphysical conceptions of disease, and during the last dying gasps of nature philosophy of Germany, there were a set of men, far in advance of their time, who were sending out a body of students to carry the torch of medical advancement to all the world. I refer to Larreque, Louis, Bright, Addison, Graves, Stokes, Astley Cooper and Schonlein.

A little before the middle of the last century we find the bulk of American students with Virchow in Berlin, Cooper in London, Charcot in Paris, Billroth in Vienna and Louis in Paris. It is of Louis, or rather his influence upon medicine and upon medical practice in America, that I hope to interest you.

Pierre Charles Alexandre Louis was born in 1787, and died, distinguished and honored, in 1872. He will be forever remembered as the founder of medical statistics, not vital statistics. Early in life he visited Russia and labored through an epidemic of diphtheria and saw much of fever and phthisis. He felt the need of further study, and to this end placed himself under Chomel, who was the master clinical teacher of the period. At this time it became evident to him that the only way to discredit systems of practice, as well as sift the good from the bad in treatment, was by the keeping of accurate records of all cases, ante-mortem, and post-mortem, and tabulate them for study. He also became convinced that no set of symptoms taken together and given a name could solve the problem

of pathological processes. He further believed that a thorough physical examination, together with the history and accumulated data, would solve many of the riddles of medicine. In this reasoning and the application of carrying out his purpose, Louis was ridiculed by his associates, who often asked, "to what purpose" was all this detail? It is refreshing to know that most of those who could not follow him at first lived to praise his results. His reasoning was as follows, as quoted by one of his students: "I know that truth lies in facts, and not in the mind that judges of them, and that the less I introduce what is merely my own into the deductions I make from them, the more certain I shall be of approaching the truth." These convictions becoming established in his mind, he devoted the remainder of his life to dissecting, hospital practice and teaching. From the autopsy room, from the bedside of the patient, and from records he soon proved many things, such as lack of value of blood-letting in pneumonia as it was then practiced. Louis is credited with having done more than 5,000 post-mortems, and with exact clinical records at hand he came to the conclusion "that good statistics [records] might be of use as an instrument of precision in cases where proper experimental methods could not be had." These records, as we know, have proven their worth in such ways as testing etiologic and hereditary data and of the value of different therapeutic methods. Good records have demonstrated their value in the demonstrations of Fournier and Erb in

bringing to light the relationship of tabes, paresis and syphilis; by others in testing the value of hydrotherapy in typhoid, antitoxins in diphtheria, and operative treatment in various acute and chronic abdominal and pelvic conditions. Louis published in 1825 the results of his studies of phthisis, based upon 358 dissections and 1,960 clinical cases. In this work he pointed out, for the first time, the frequency of infection of the apices. His treatise on typhoid eventually gave the disease its present name. He was devoted to the use of the watch in timing the pulse. In that day of snap diagnosis, sleight-of-hand surgery and inexact methods of work, the strong stand taken by Louis in favor of facts and figures, with a well organized system of examination, recording and bedside study, appealed to the practical common sense of an influential body of American physicians, who were to come home and spread the doctrines of accuracy throughout American medicine.

The lovable temperament of the master, his devotion to his pupils, his enthusiasm for the work won an ever increasing admiration. His insistence upon extensive study in the dead house, at the bedside, and a careful survey of the histories, convinced these brilliant students that only by this method of study and practice could real solid advancement be made in accurate knowledge of the healing art. The one great classic example of the results to be obtained by careful history and symptom survey, to be followed by a painstaking study of the post-mortem findings, was the discovery by Louis of the disease of

Peyer's glands in certain cases of typhus fever. This discovery was the means of his American pupils publishing to the world definite proof of the difference between typhus and typhoid fevers. There were about forty of these American pupils who were to return enthused with the power of exact observation and record keeping. They were also convinced of the need in America of more extensive training for students of medicine, with a more elaborated and better organized faculty. They also brought home the revolutionary ideas that clinical bedside instruction should supersede the didactic system. Of the whole list, all of whom became prominent in American medicine, the following will stand out in your minds as the molders of thought during the struggle to elevate the standard of teaching of our art: James Jackson, H. I. Bowditch, Oliver Wendell Holmes, George Shattuck, J. C. Warren, of Boston, Swett, Dubois, Clark, Mitchell, Smith and Mott, of New York, George Norris, Gerhard, Pennock Stille, Stewart, Bid-
dle, Peace, William Pepper, Sr., and Tyson, of Philadelphia, William Power, of Baltimore, Gaillard, Cabell, Selden and Randolph of the South. Many of the foregoing names are familiar to all of us, and all have been benefited directly and indirectly by their lives and activity in things medical.

It seems surprising that so many men of distinguished talents should have received their instruction and ideas of progress from this one source. I do not wish to slight or belittle in the least the influences of other great masters,

many of whom have been of the greatest value to the students who came under their influence, and through their students have left an indelible imprint upon American medicine. I shall leave it to you to find one whose personality has been so carved in the hearts of so many able teachers and educators during a few short years. Osler said that these students of "Louis came home endowed with the spirit and zeal of their master, they brought his great message to the new world with faith in the future—love of professional work, accurate methods and devotion to truth. More than this, they were touched by these finer qualities which made Louis so lovable—they became the personification of ideals for future generations of American students." Louis was, to his students, not only the master at whose feet they sat, under whose eye they developed, he was more, he guided their everyday life in Paris, he was interested in them as men, so that when they left him they found, as Bowditch put it, that "he had inspired the tenderest of feelings by his fatherly kindness." I think that young Jackson's letter to his father is truly expressive of the sentiments inspired by this great man in his whole body of students, and on what affectionate terms they lived with their teacher in Paris. The letter is as follows:

"In two hours I am out of Paris. I will not attempt to describe to you the agony it gives me to quit Louis. He is my second father, and God knows that is a name I of all men cannot use lightly. I may not persuade you to

look upon him with my eyes exactly as a scientific man, but in your heart he must have the share of a brother, for he almost shares my affection with you. From one upon whom I had no claims, but those which my life and mind and habits gave me, I have experienced a care, an affection which I never could dare expect from any but my dear father, and which I shall ever feel to be the most honorable and truly worthy prize of my life."

As I previously mentioned, all of these students, upon returning from the influence and teaching of Louis,

began an effective agitation in favor of clinical bedside instruction in the medical courses. How well their efforts have succeeded needs no answer from me. We must come to the conclusion, however, that the decided change from practically all didactic instruction as late as 1870 to a minimum of lectures but extensive bedside clinical instruction which the beginning of this century saw was a vast change. It is "something of" a surprise to find that the leaven which started this fermentation process was, for the most part, the work of this single master mind.

***GASTRIC ULCER FROM THE VIEWPOINT OF THE SURGEON.**

By SAMUEL H. KAGAN, M. D., Augusta, Maine.

Little is known of the important underlying pathologic and physiologic changes which, first, lead to ulcer, and which, secondly, determine its course and future. Stress has been laid on the treatment of the ulcer itself, with resulting schemes as to diet, alkali therapy and types of operations.

Since we do not know the fundamental causes and factors determining the course of the disease, surgeons do not know exactly what to do. There is no operative procedure, based on any scheme of reasoning, which cannot be condemned by another, perhaps equally logical.

The present consensus of surgical opinion is that, except in certain cases, prolonged medical treatment is the method of choice.

Operation should be advised under the following circumstances:

1. At the earliest moment after perforation.
2. For pyloric obstruction without symptoms of active ulceration.
3. For pyloric obstruction with symptoms of active ulceration which is still found to be present after three to four weeks of medical treatment.
4. Gastric ulcer causing organic hour-glass contraction sufficiently severe to produce six-hour stasis in the proximal segment.
5. When the symptoms recur after one or more courses of thorough medical treatment followed by adequate after-treatment. The number of such courses which may be tried depends upon such circumstances as the age, social position,

* Read at meeting of the Kennebec County Medical Association, April 5, 1927, at Waterville, Maine.

occupation, and place of residence of the patient; thus the older a patient, the better his social position, the less strenuous his occupation and the less important occasional absences from business, and the warmer and more equable the climate, the less urgent is the necessity for operation.

6. Gastric Hemorrhage. As it is very rare for death to occur from a single gastric hemorrhage, no operation should be performed except when severe hemorrhage recurs more than once, especially in patients past middle age, and it appears probable that the blood comes from a sclerotic vessel which cannot contract. An attempt should be made to excise the ulcer, or, if this is impossible, to ligature the bleeding point; failing this, a series of sutures should be tied round the ulcer so as to cut off as much as possible of its blood supply and control the bleeding. Whenever possible, it is best to wait until the patient has recovered from the initial collapse following a severe hemorrhage; the patient should be transfused before, and if necessary, after, the operation.

7. When for any reason, such as the persistence of pain, or of occult blood in the stools, it appears possible that a growth is present, the abdomen should be explored, and unless a growth can be excluded with certainty, partial gastrectomy should be performed.

The principal operations include gastro-enterostomy or G-jejunostomy, pylorotomy, V-shaped resection, circular resection, partial gastrectomy, and subtotal gastrectomy.

The various operative procedures change not only the motor but also the secretory activities of the stomach.

The V-shaped resection means some crippling of the motility, and offers but

little protection against recurrences of the ulcer, while the mid-gastric or circular resection too often results in an hour-glass stomach and return of the ulcer, as well as a crippling of motility. These operations usually give temporary relief, but they do not stand the test of time.

Gastro-enterostomy alone probably does heal a number of ulcers. Exactly how, it is not possible to state, for the motor function, as far as emptying the stomach is concerned, is but little affected. Logically, the only reason for its performance would seem to be pyloric obstruction, yet there are abundant clinical reports to indicate that this operation alone will be followed by a cure in a certain number of ulcers where the ulcer was not excised. The best results, clinically, have been in those cases where the pylorus was obstructed, or occluded by removal or otherwise. When the symptoms returned, it was often found on X-ray examination that barium passed through the pylorus instead of through the gastro-enterostomy opening, whereas examination made while the patients were symptomless disclosed the barium to be passing through the gastro-enterostomy and not through the pylorus. Because of this fact, many men insist on occluding the pylorus at the time of gastro-enterostomy. The return of symptoms in the operated cases may, however, be due to another ulcer, especially marginal or jejunal ulcer, as these are only found in cases of gastro-enterostomy.

At the present time there seems to be a change in feeling from gastro-enterostomy to that of partial or subtotal gastrectomy, the latter type of operation being particularly favored by such men as Moynihan, Deaver, Finsterer, Ha-

berer, Horsley, and Crile. The rationale of this operation is the removal of the pathologic condition along with the acid-bearing portion of the stomach, thus materially lessening, if not preventing, the sequelae—future ulcer formation, bleeding, etc., which often follows the more palliative and less radical operative procedures. The hyperacidity is much reduced, and may become entirely absent after a subtotal gastrectomy.

Crile considers the principle, on which the partial gastrectomy is based, to be in accord with the treatment of hyperthyroidism; namely, resection of the stomach controls hyperacidity just as thyroidectomy controls hyperthyroidism; a change from a mechanical to a physiologic attack. He considers the operation safe, and the clinical results incomparatively better.

Thus to-day one practically has to choose between a gastro-enterostomy, with or without excision of the ulcer, or one of the modifications of partial gastrectomy, and the choice must depend on the pathologic condition found, the condition of the patient, and the judgment and ability of the surgeon.

For those cases of ulcer with marked infiltration and adhesions, where excision is impossible or would be dangerous, there is a ray of encouragement in the work of Braithwaite, of England, who does a cholecystogastrostomy as the operation of choice. This operation lets only the bile—no pancreatic fluid—into the stomach, with most encouraging results. Whether the relief is due to the reduction of acidity, or whether the bile may have other powerful qualities in the reduction of gastric disturbances, is unsettled. Certain it is, Braithwaite states, that in these difficult cases there was nothing to show that anything unusual had been done, and not a single patient suffered in any way from the flow of bile into the stomach.

No matter what type of operation is performed, the after-treatment should consist of the same careful prolonged treatment as is followed in the medical treatment of gastric ulcer. All foci of infection, as the teeth, tonsils, sinuses, appendix, gall bladder, etc., must be removed, otherwise further ulceration may result in spite of the operation. Eternal watchfulness of the patient as to his diet becomes imperative.

NECROLOGY

**Lucien Lupien, Westbrook,
1869-1927**

One of the most valuable of our members, of French extraction, Dr. Lupien, of Westbrook, a member for fifteen years or more, was found dead in his home on the morning of February 21st last. A patient in search of

advice failed to get an answer to the bell, so went around the house until he found Dr. Lupien lying prone over the edge of the bath tub. The physician summoned for aid was of the opinion that Dr. Lupien had fainted and fallen over instantly, dead. He had long been a sufferer from a cardiac affection

which was sufficient to account for his sudden death.

Dr. Lupien was born at Becancourt, P. Q., Canada, obtained his medical degree in 1893 at Lasalle University, and afterward studied post graduate at the Sorbonne in Paris. He practiced first at Lewiston, and then removed to Westbrook, where he died. He was a courteous and genial man and physician, obtained an excellent medical reputation in both places of practice, had a large clientage of patients, was an active member of various French-American friendly and social orders, and leaves a widow, who was Miss Lide de Vallers, daughter of Abraham and Adelina de Vallers, and a daughter to lament his loss.

J. A. S.

**Clarence Arden Peaslee, Bath,
1855-1926**

Dr. Peaslee died rather suddenly from sclerosis of the liver September 11, 1926, having just passed his seventy-first birthday.

He was born at Alna, August 16, 1855, the son of John Thurston and Mary Elizabeth Paine Peaslee, and was educated in the schools of Alna and Kent's Hill. He then took up the trade of a skilled cutler and machinist, forging steel blades for knives and other cutting implements. In this trade he became an expert, and by means of it he earned money enough to get married and to go with his wife, who was Miss Augusta Hall, of Bath, to study medicine at Bowdoin. Previous to this he had followed out the practice

of Dr. Bibber, of Bath, and during the next three years he lived at Brunswick during the lecture terms, where he obtained his degree of M. D. in 1883, with a thesis on "Our Doctors." He was then twenty-eight years of age, with a mind well matured for the practice of medicine.

Dr. Peaslee settled at once in Wiscasset. After twenty years of practice in Wiscasset, Dr. Peaslee moved to Bath, where he continued his excellent work, taking additionally post graduate courses in New York and in Europe, and devoting the best part of the rest of his life to special surgery of the eye.

He was prominent in the political circles of Bath, served on the school committee, went to the Legislature, obtained for his fellow citizens the laws that they thought they needed, and also did his share for advances in medicine. Fluent as a speaker in politics, he also spoke much in medical societies, and at the time of his death was President of the Sagadahoc County Medical Society. He wrote a good many medical papers, taking for his titles, "Fractures," "Obstetrics," and two recent papers on "The Relations Between Medicine and the Ministry," which he read before some clergymen in Bath. Finally, he served during the war on the Medical Advisory Board and was attached to the staff of the Bath City Hospital.

His first wife died early and he married again Miss Frances Hobson, of Wiscasset, and is survived by her, with her kindly memories of a genial and lovable companion.

JOURNAL OF THE MAINE MEDICAL ASSOCIATION

Dr. Frank Y. Gilbert, 148 Park St., Portland, Editor-in-Chief

Dr. James A. Spalding, Portland, Necrologist

Dr. Bertram L. Bryant, Bangor, Secretary Maine Medical Association

Dr. Stanley P. Warren, Portland, Chairman, Board of Councilors

Dr. Clarence Kendall, Augusta, State Commissioner of Health

Dr. C. A. Moulton, Hartland, Chairman Committee on Public Relations

Dr. E. H. Risley, Waterville, Chairman Cancer Committee

Dr. Thomas A. Foster, Portland, Chairman Scientific Committee

EDITORIAL COMMENT

Annual Meeting of the Maine Medical Association

The seventy-fifth annual meeting was held in the new Eastland Hotel, June 13th to 15th, and not only provided some interesting clinics and meetings, but offered some social diversions which were enjoyed by those in attendance.

The guests of the Association were Dr. Rock Sleyster, Trustee of the American Medical Association; Dr. Holman Taylor, Secretary and Editor of the Texas Medical Association; Dr. F. M. Allen, New York; Dr. G. G. Duncan, Philadelphia; Dr. D. F. Jones, Boston; Dr. J. S. Rodman, Philadelphia; Dr. David Parker, President of New Hampshire Medical Society; Dr. James S. Stone, Ex-President of Massachusetts Medical Association, and Dr. Walter Bowers, Editor of *Boston Medical and Surgical Journal*. They entered into the Association affairs, and all contributed something of value to the medical men of Maine.

While all the recommendations embodied in the Secretary's report, as well as the reports of Councilors and Standing Committees, received favorable ac-

tion, we wish to mention briefly one or two.

The New England Medical Council is a step in the right direction, for the reason that medical licensure, medical education, medical defense, medical insurance, medical journals and various other problems can best be considered by a group of five members from each of the six New England States, who will meet at least twice a year. The men selected from the states should have a fairly clear knowledge of conditions in their own state and some knowledge of conditions in other states outside of New England. The members of this Council are bound to come back to their state associations with some very valuable information when these various problems are up for consideration, and should render valuable service to their respective associations.

The Woman's Auxiliary should prove a valuable addition to our state work and is dealt with elsewhere.

The reports of the House of Delegates and the General Sessions will appear in the next issue, and we recommend that every physician read this issue.

The Woman's Auxiliary of the State Association

Through the enthusiasm of Mrs. David Parker, President of the Woman's Auxiliary of New Hampshire, the Woman's Auxiliary to the Maine Medical Association was formed at this session and should render valuable service to the physicians of Maine, as elsewhere. The physician in his home cannot discuss his life work, viz., his patients. His relation with his patients is absolutely confidential, and unfortunately all problems relating to the medical profession are little known to the real helpmate of the physician. He has sought health laws to protect the public, even though they meant a loss of income; he has endeavored to see that the physician shall be highly educated and thoroughly trained for his work, so that the public will be best served; he has insisted that the medical schools and hospitals shall have a high standard and the state enact laws to protect the public from the lesser trained practitioners; and, finally, he has battled with the cult problem in the sole interest of the public. Throughout all time, he has been criticised by the public and grouped into that class of business enterprise which seeks to crush the weaker ones and eventually profit by their suppression.

To-day, among the truly educated people, the graduate of the regular medical school stands pre-eminent in the recognized profession. The old-time physician was not only medical counselor but family adviser, whereas to-day he is more apt to be a specialist

in some branch of medicine. In smaller communities, he serves on the school board and is active in the general affairs of his community, while in the larger centers he is giving largely of his time and money to the caring for the poor at various clinics and hospitals, serving on boards for the many worthy causes, always identified with all activities tending towards good government, both at home and abroad, working to eliminate, through health laws, unnecessary suffering on the part of the public. His present position before the public is the result of the development of years rather than a short decade, and no one can more than speculate as to what the future holds. But one thing is certain, and that is, if the public is ever to realize the true aims and work of the profession, they must, to a large degree, gain that information from the wives and families of the physicians, who should be as thoroughly conversant with the problems surrounding the profession as the physician himself. Medical education, standardization of medical schools and hospitals, medical licensure, medical defense and insurance, nursing problems, etc., should be presented and discussed before the Auxiliary just as openly as before the Medical Association, so that when the physician's wife is asked by some of her friends concerning medical problems, she can speak intelligently concerning them. The whole future of the profession lies in educating the public as to the aims and ideals of the medical profession, and the wife, through her friends and her clubs, can play a very prominent part in the future of the profession.

COUNTY NEWS AND NOTES

Kennebec County Medical Association

The quarterly meeting of the Kennebec County Medical Association was held at the Sisters' Hospital, Waterville, Me., Tuesday afternoon and evening, April 5, 1927.

The meeting was called to order by the President, Dr. Frederick T. Hill, and the clinical program was as follows: "Esophageal Cases," Dr. F. T. Hill, Waterville; "Carcinoma of the Fundus of the Uterus," case report, Dr. R. L. Reynolds, Waterville; "Recklinghausen's Disease," case report, Dr. Wm. Gousse, Fairfield; "Cervical Abscess Secondary to Septic Sore Throat," Dr. V. Totman, Waterville; "Fractures of the Leg," case report, Dr. E. W. Boyer, Waterville; "Central Choroiditis from Focal Infection," Dr. H. F. Hill, Waterville; "Nitrous Oxide and Oxygen Anesthesia for Mastoid Operation Complicated by Pneumonia, Pleurisy with Effusion and Nephritis," Dr. P. S. Merrill, Waterville; "Typhoid Peritonitis of the Tibia," Dr. B. O. Goodrich, Waterville; (a) "Double Ovarian Dermoids with Twisted Pedicle—What to Do," (b) "Traumatic Rupture of the Liver—What Not to Do," Dr. E. H. Risley, Waterville.

Following the clinical session the meeting adjourned to the dining room, where a delicious dinner was served by the hospital.

Owing to an unusual pressure of business, it was voted that the reading of the minutes of the last meeting be omitted.

A committee was appointed to consider the advisability of holding an outing later on in the summer. This report will be read at the next meeting of the Association, which will be held in Augusta, June 7, 1927. The committee appointed is as follows: Dr. William O'Connor, of Augusta; Dr. W. L. Reynolds, of Waterville, and Dr. L. D. Herring, of Winthrop.

Dr. H. J. Fredericks, of Augusta, Dr. J. D. Nutting, of Hallowell, and Dr. F. E. Stront, of Gardiner, were appointed a committee on resolutions on the death of Dr. O. C. S. Davies, of Augusta, the same to be read at the next meeting.

It was voted that the details of the next meeting, which is to be held in Augusta, June 7th, be left with Dr. Richard H. Stubbs, of Augusta.

The advisability of Kennebec County inviting the Maine Medical Association to hold its annual meeting June, 1928, at Belgrade, was discussed. This matter was tabled by Dr. Kagan, of Augusta, until the next meeting of this Association.

An application for membership of Dr. George Gregoire, of Waterville, was received and referred to the Board of Censors.

The scientific part of the program was next enjoyed. This consisted of a symposium on "Gastric Ulcer." The first paper was read by Dr. J. O. Piper, of Waterville, on "Gastric Ulcer from the Viewpoint of the Internist." Dr. S. H. Kagan, of Augusta, next read a

paper upon "The Surgical Aspect of Gastric Ulcer." The last paper was by Dr. J. P. Goodrich, of Waterville, on "Gastric Ulcer from the Viewpoint of the Rontgenologist." These papers were discussed by Drs. Wm. O'Connor, E. H. Risley, H. E. Hall, A. B. Libby and George Coombs.

The afternoon and evening sessions were very interesting, and the case histories and papers were fully discussed, with a great deal of benefit to all those present. At the close of the evening a rising vote of thanks was extended to the sisters for their hospitality and courtesy in making the meeting possible.

The members and guests present were: Drs. M. A. Priest, R. L. McKay, Geo. A. Coombs, Samuel H. Kagan, R. H. Stubbs, F. C. Tyson, William J. O'Connor, F. R. Carter, of Augusta; H. L. Parizo, Arthur R. Davreau, H. L. Hill, R. L. Reynolds, E. W. Boyer, Edward H. Risley, J. Fred Hill, J. P. Goodrich, F. T. Hill, A. H. McQuillan, J. O. Piper, B. O. Goodrich, H. W. Abbott, P. S. Merrill, J. E. Poulin, V. C. Totman,

B. P. Hurd, N. Bisson, of Waterville; W. L. Gousse, F. L. Tozier, of Fairfield; Arthur H. Shaw, of Clinton; H. W. Hall, of Hallowell; G. W. Alexander, A. B. Libby, of Gardiner; C. H. Newcomb, of Clinton; W. W. Hendee, of North Vassalboro; F. H. Badger, L. D. Herring, of Winthrop; Guests, Geo. M. Gregoire, of Waterville, Walter J. Hammond, of Dexter, and E. P. Williams, of Oakland.

Respectfully submitted,

FREDERICK R. CARTER, M. D.,
Secretary.

Washington County Item

Dr. Nat B. T. Barker, who practiced medicine for twenty-one years in Woodland, Me., sold his practice in May, 1926, to Dr. Harold DePue, of Calais. During the summer he took a post-graduate course at the Massachusetts General Hospital. Since then he has been living in Datona Beach, Florida, where he is licensed to practice medicine. Following the Miami disaster, he did relief work in the hurricane district.

NOTICE

United States Civil Service Examination

The United States Civil Service Commission announces the following open competitive examination:

ASSISTANT MEDICAL OFFICER.

ASSOCIATE MEDICAL OFFICER.

MEDICAL OFFICER.

SENIOR MEDICAL OFFICER.

Applications for these positions will

be rated as received at Washington, D. C., until December 30.

The examinations are to fill vacancies occurring in the Indian Service, the Public Health Service, the Coast and Geodetic Survey, the Panama Canal, the Veterans' Bureau Field Service, and other branches of the federal classified service throughout the United States.

Specialists are needed in practically all branches of medicine and surgery. There is especial need for medical officers qualified in tuberculosis or neuro-psychiatry.

Competitors will not be required to report for examination at any place, but will be rated on their education, training and experience.

BOOK REVIEW

New and Non-Official Remedies, 1927, containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1927. Cloth. Price, post-paid, \$1.50. Pp. 473, XLVII. Chicago. American Medical Association.

The appearance of the annual edition of *New and Non-Official Remedies* is looked upon as an event among all those interested in drugs and their therapeutic use. The text is so carefully scrutinized and revised each year by the various members of the Council on Pharmacy and Chemistry that each issue is essentially a new book, a safe guide to the frontier that lies between the official drugs and the latest preparations launched by the pharmaceutical manufacturers.

The mechanism of the book is excellent. Each preparation is classified, and each classification is preceded by a general and critical discussion of the group by one who is an authority on the subject; there is an exhaustive index not only to the contents of the book, but also, separately, to the literature concerning the host of preparations that the Council has found unacceptable for inclusion. A glance at the book shows that the most important single revision this year is that of the general article on Lactic Acid-Producing Organisms, which has been radi-

cally revised and rewritten to show the present status of therapy in this field. Further perusal shows that many preparations have been omitted. The preface explains that many of these have been omitted because the manufacturers or distributors have not presented evidence to demonstrate their continued eligibility. Some have been omitted because they have become official articles by inclusion in the tenth edition of the U. S. Pharmacopeia; such articles, when marketed under the pharmacopeial name or synonym, and without special claims, do not require description in *New and Non-Official Remedies*.

Among the preparations newly admitted to the book are: Isacen, a product related to phenolphthalein; Ipral, a barbitol hypnotic; a cod liver oil concentrate having a definite vitamin A and vitamin B potency; and three erysipelas streptococcus antitoxin preparations.

New and Non-Official Remedies is indispensable to any physician who prescribes drugs. It contains information about medical products which cannot be found in any other publication.

PHYSICIANS' EXCHANGE

Salaried appointments for Class A Physicians in all branches of the medical profession. Let us put you in touch with the best man for your opening. Our nation-wide connections enable us to give superior service. Aznoes National Physicians' Exchange, 30 No. Michigan, Chicago. Established 1896. Member the Chicago Association of Commerce.

THE JOURNAL

OF THE

Maine Medical Association

Published under direction of the Council of the Maine Medical Association

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The Journal assumes no responsibility for opinions expressed by the authors.

VOL. XVIII.

JULY, 1927

No. 7

MEETING OF THE HOUSE OF DELEGATES

First Session

CONGRESS SQUARE HOTEL, PORTLAND,
MAINE, JUNE 13, 1927.

The meeting was called to order by the President, Dr. L. P. Gerrish, of Lisbon Falls, at 8.00 P. M.

The roll of Councilors and delegates was called.

President Gerrish: I think the committee reports are practically all

printed in the last issue of the JOURNAL. I think, however, that Dr. Bryant has a supplemental report to add as Secretary and Treasurer.

Dr. Bryant: These two reports were not ready to come in before because the financial year of the Association was not up at the time the other reports went to press.

As supplementary to the Secretary's report is this matter of membership.

COUNTY	MEMBERS 1926	NEW MEMBERS	REIN- STATED	MOVED	DIED	RESIGNED	MEMBERS 1927
Androscoggin	71				1	1	69
Aroostook	47	1			1		47
Cumberland	199	10		3	7	1	198
Franklin	15						15
Hancock	27	1					28
Kennebec	72	6			2		76
Knox	33			1			32
Oxford	34	3	1				38
Penobscot	105	3	1		2		107
Piscataquis	13						13
Sagadahoc	16				1		15
Somerset	33			1		1	31
Waldo	14			1			13
Washington	41	1	1		1		42
York	67	2			1	2	66
Paying Direct	10						10
Totals	797	27	3	6	16	5	801

There are about 900 physicians in the State of Maine. Out of the 900, you have 801 as full-fledged members.

TREASURER'S REPORT.

EXPENDITURES.

Journal,		\$1,000.00
Medical Defense:		
Locke, Perkins & Williams,		250.00
Secretary's Office:		
Secretary, salary,	\$100.00	
Secretary, telephone,	24.90	
Secretary, travel,	48.60	
Secretary, expenses as delegate,	118.00	
E. M. Clark, stenographer,	278.25	
Supplies, printing, etc.,	43.80	
American Medical Directory,	12.00	
	<hr/>	625.55
F. Y. Gilbert, expenses as delegate,		105.00
Annual Meeting, 1926:		
Speaker:		
John B. Deaver, expenses,	\$ 62.75	
Entertainment:		
Hiram Ricker & Son,	117.60	
Clay, stenographer and transcripts		
of meeting,	123.45	
	<hr/>	303.80
Annual Meeting, 1927:		
Programs, envelopes and postage,		68.35
Secretaries' meetings,		76.20
Councilors' expenses,		16.87
Flowers,		20.00
President's expenses for 1925-26,		100.00
Blake, Barrows & Brown, bond for treasurer,		5.00
Half tones for obituaries,		12.50
	<hr/>	\$2,583.27

CREDITS.

Cash on hand,	\$3,303.00	
(Savings account of Venereal Disease Committee included in cash on hand, \$629.11.)		
Interest on above account,	27.71	
Securities (including Thayer Fund),	6,000.00	
Dividends on securities,	345.00	
Cash from dues,	3,188.00	
Interest on deposits,	12.91	
	<hr/>	
Total credits,		\$12,876.62
Total expenditures,		2,583.27
		<hr/>
Balance—cash and securities,		\$10,293.35
Cash in checking account,	\$2,935.40	
Cash in savings account (coupons from bonds with interest on same),	701.13	
Cash in savings account (Venereal Disease Committee Fund with interest),	656.82	
	<hr/>	
		\$4,293.35
Securities,		6,000.00
		<hr/>
		\$10,293.35

President Gerrish: I will call the attention of the Council to its duty of auditing these accounts.

I appoint the following Reference Committee: Drs. H. D. McNeil, Bangor; R. H. Marsh, Guilford; W. E. Kershner, Bath; I. W. Staples, Norway; F. W. Mann, Houlton.

As a Nominating Committee: Drs. C. A. Moulton, Hartland; G. E. Young, Skowhegan; E. G. A. Stetson, Brunswick; William Ellingwood, Rockland; W. N. Miner, Calais.

The President: The Nominating Committee will meet in this room directly after this session. Are there any other reports besides the ones printed in the JOURNAL and the supplementary report By Dr. Bryant? If not, these reports will be referred to the Reference

Committee. Is there any new business to come before this meeting?

Dr. Warren: Mr. President, it seems to me the matter of President-elect ought to be raised in some way. There ought to be something added to the constitution and by-laws which will recognize that position and the work of that office.

Dr. Mann, of Houlton: I move that the President appoint a committee of three to revise our by-laws and bring them more in accord with the constitution and by-laws of the American Medical Association, and that that committee report at our next annual meeting.

The motion being seconded by Dr. Warren, of Portland, it was so voted.

The President: I will appoint that

committee later. Is there any matter of new business?

Dr. Campbell, of Augusta: Mr. President and Members of the House of Delegates: I have been asked to present the blanket insurance which has been adopted by the medical society of the State of New Jersey. It is backed by the Commonwealth Casualty Company and the Standard Insurance Company of Philadelphia, a blanket insurance for all medical men in the State, member of the Association. Accident and Health contract, \$50.00 a week for any illness or accident, and \$25.00 a week for partial illness and accident. That, of course, to cover any illness which arises in the future, and not any illness from which the candidate already suffers. \$5,000.00 if killed from accident. All the above items doubled if accident occurs in a public conveyance. The rates are rather interesting. Rates up to 50 years next birthday, \$60.00 a year; rates over 50 and up to 60, \$70.00 a year; over 60 years of age, \$80.00 a year. No examination. This policy is not the regular commercial policy; it was made up expressly for the doctors of the medical society, is identical to the one which has already been accepted by the New Jersey medical society and has proved a great success. The policy is promptly issued to any member who applies.

Secondly, automobile, fire and theft insurance. By insuring under a group, such as the Maine Medical Association, we are able to offer insurance at a reduction of 20%, automobile liability and property damage, 15% reduction by insuring under a group. All the insurance companies are regular stock companies and are strong financially.

I offer this for the House to discuss

further if they care to. As I understand it, the New Jersey association has had it for about a year and are very well satisfied with it. It is quite a saving in rates, and there is also the advantage of not dropping a man after he gets to be sixty years of age, as so many of these insurance policies do.

President Gerrish: Is there any discussion on this matter of health, accident and automobile insurance in blanket form?

On motion of Dr. Kershner, it was voted that a committee be appointed by the President to look into this matter of insurance and report to the House next year.

The President: Is there any other business?

Dr. Campbell: On behalf of Kennebec County, I take pleasure in extending an invitation to the Maine Medical Association to hold their 1928 meeting at Belgrade Lake. I am sure the Kennebec County Association would be very glad to have the meeting there next year, and we will do everything in our power to make it pleasant.

President Gerrish: Is there any motion concerning the matter relative to holding next year's meeting at Belgrade Lakes? Is there any other invitation for the meeting next year?

Dr. Sturdivant: If in order, I move that we thank the Doctor for the invitation, and hold the matter in abeyance until the next meeting of the House of Delegates.

The motion was duly seconded and prevailed.

The President: Is there any other matter of new business? [No response.] Massachusetts is our neighbor. They like to come down here from Massachusetts and we certainly

like to have them. It is my pleasure to introduce to the House of Delegates Dr. Walter Bowers, of Boston, editor of the *Boston Medical and Surgical Journal*, who will say a few words to us.

Dr. Bowers: Mr. President and Fellows of the Maine Medical Association: I feel a little like an interloper here because I am not one of the regular delegates from the Massachusetts Medical Society. Those delegates will be with you to-morrow and will bring the greetings of the Society.

My particular interest, of course, as you may suspect, consists in the development of the *Journal*, and the matter has been considered by some of your representatives as a co-operative measure. In order to disabuse you of any possible misconception, I want to say that the *Journal* has no selfish motive in trying to get the other New England States to come in with it. The Massachusetts Medical Society, as you perhaps know, bought the *Boston Medical and Surgical Journal* in 1921. That *Journal* had been in existence for something over ninety years at that time, and will have arrived at its one hundredth anniversary next February. At the time when the *Journal* was taken over, the condition was made by the former owner that the name should not be changed until the one hundredth anniversary had been past, so that the Massachusetts Medical Society is under obligation to retain the name of the *Boston Medical and Surgical Journal* until next February. It contemplates changing the name at some time, because there is a sufficient amount of interest manifested on different occasions to make it worth while considering enlarging the scope of the *Journal*. The New England States, as you all know, are

geographically situated so that they are practically a unit; at least we all like to feel that we think and behave about alike and have about the same ambitions. I want to assure you that Massachusetts has the same ambitions as you have in Maine, and we have been led to appreciate the very high work that has been done by your Public Health Association and your Medical Association in co-operation with the Public Health Association. We think that you have done it in a very remarkable way. The work you are doing all the time is worth getting into medical literature. Of course you have your State *JOURNAL*, but I presume your State *JOURNAL* is, like many of the State journals, almost limited to members of the State Association, and there has been at various times a little spark of interest on the part of some of the people in Maine looking forward to an amalgamation which will develop a little larger journal than we have at the present time, making what is now the Boston journal a New England journal.

The matter has been studied by our people very definitely, and if enough interest can be developed, it is felt that the cost of putting our material in a journal of this kind would practically be about the same as the present cost. At least, we have studied it on that basis and we think that we are offering a proposition which will not involve a materially greater outlay on your part. We shall continue to make just as good a journal as we know how to make, and if at any time here in Maine you feel a desire to unite in the development of a New England journal, the Massachusetts Medical Society will be very ready to co-operate. I thank you.

President Gerrish: It is certainly a

pleasure to have with us one of the Trustees of the American Medical Association, Dr. Sleyster, of Wisconsin.

Dr. Sleyster: Mr. President, and Members of the House of Delegates: It is a pleasure indeed to meet with you to-night and to bring you the greetings and good wishes of the officers and fellows of the American Medical Association. I have listened to my good friend, Dr. Bryant, brag about the Maine Medical Association for a great many years, and I have had a great curiosity to come here. I have come in the capacity of an observer rather than as a speaker. I wish you a very successful meeting, and I know you are going to have one. I might say that I have visited a great many Houses of Delegates in the last few years, and this is quite the most peaceable association that I have visited anywhere.

The President: The next meeting of the House of Delegates will be after the session to-morrow afternoon, in this room. If there is no further business, a motion to adjourn is in order.

Dr. Moulton: Mr. President, I would like to ask what you expect the duties of the Nominating Committee to be. I wish a little light, inasmuch as our President-elect has deceased.

The President: Nomination of officers except the President and President-elect, who are elected at the last General Session.

Voted to adjourn.

Second Session

CONGRESS SQUARE HOTEL, PORTLAND,
MAINE, JUNE 14, 1927.

The meeting was called to order by the President, Dr. L. P. Gerrish.

The President: We will first have the report of the Reference Committee.

Dr. H. D. McNeil, of Bangor: Your Reference Committee, appointed by the President, begs leave to report: We heartily endorse the secretaries' and officers' meetings that have been held during the past year, and recommend that the same procedure be carried out under the guidance of our Secretary.

On motion by Dr. McNeil, duly seconded, the above recommendation was adopted by the House of Delegates.

Dr. McNeil: We approve the action of the Committee on Public Relations, State Board of Health and Maine Public Health Association, governing the work of health nurses in towns and counties.

On motion by Dr. McNeil, duly seconded, that paragraph of the report of the Reference Committee was unanimously adopted by the House of Delegates.

Dr. McNeil: We again urge that all members of our society take advantage of our liability insurance. Some of our members are taking chances in not being insured, and it is essential for them, as a matter of protection, to see that they are fully covered by liability insurance in some form, and we recommend the group insurance as carried by the members of the Maine Medical Association.

On motion by Dr. McNeil, duly seconded, the foregoing recommendation was unanimously adopted by the House of Delegates.

Dr. McNeil: We recommend that this Association join the New England Council and take part in its deliberations, as we feel that by so doing close relationship will exist and matters pertaining to New England as a whole will have much closer consideration through the formation of this Council. We furthermore recommend that this Associa-

tion send delegates, and pay our pro rata share of the expense. I move that this be adopted.

Dr. Warren, of Portland: Mr. President, that needs argument. Just as soon as we join in that sort of thing, Maine is lost. Just as soon as we begin to divide up with the other New England States on the journal, and all those things, Maine is done. We have peculiar ways up here and this is a question that ought to be discussed.

Dr. Goodwin: Mr. President, do I understand that if we join in this Council, the State JOURNAL necessarily will be taken over?

The President: Not necessarily; not under this article.

Dr. Goodwin: Mr. President, it seems to me that this is co-operation in which we should indulge. It is the same old controversy of international peace. We have got to get together in New England if we are going to accomplish anything. Maine cannot isolate herself and expect to keep up with the best standards throughout the East. I am heartily in favor of the Council.

Dr. Warren: I will second the motion so that the matter can be argued.

The President: It is moved and seconded that we become a member of the New England Council.

A *viva voce* vote being taken, the motion prevailed.

Dr. McNeil: We again recommend that the society hold clinics throughout the year at certain cities that they may designate, in order that every doctor who has not close connection with a hospital may gain knowledge of what is going on in medical lines.

On motion by Dr. McNeil, duly seconded, the above recommendation was unanimously adopted by the House of Delegates.

Dr. McNeil: The much discussed and many times debated bill on medical licensure is again brought to our attention. Our Legislative Committee, in conjunction with members of our Association who take an active part in the legislature, we believe should have the power to have a consultation between any attorney or attorneys they shall select and any attorney or attorneys of one of the cults who tried hard at the last legislature to have certain bills passed in their favor, and who were defeated in their attempts, and have them arrive at some conclusion that would be acceptable to all.

Dr. Taylor, of Texas: We control the practice of medicine in our State, not through a basic science bill such as the American Medical Association has devised, but a requirement that all who are engaged in this same occupation take the same examination on those branches of medicine concerning which there are no disputes between educated physicians of whatsoever school; and in that way we include obstetrics, surgery, gynecology, everything except therapeutics and materia medica, because we proved to our legislature that all of the so-called schools of medicine taught the same branches and out of the same books except for practice. Now our requirement that is basic is that the State Board of Medical Examiners shall require applicants for license to practice medicine in Texas, to have taken a course in a medical college, comprising four terms of seven months each, and four separate years in medical colleges, classified by our Board as Class A colleges, according to the standard of the American Medical Association. This Board of Medical Examiners has been lenient with the osteopaths because they had no such schools. The osteopaths had a

large following and they had to be taken care of, and we have taken care of them. We have worked in perfect good faith with them, and the result has been that very few pass our Board, though many of them try.

In Texas the constitutional requirement is that there shall be no discrimination against schools, and in order to make this One Board Bill, as we called it in 1907 and still call it, constitutional, we incorporated the provision that no one school of medicine should have a majority representation on the Board. That means that there are now on our Board five regulars, two homeopaths, two eclectics and two osteopaths.

We assumed that the State of Texas could not legislate on the practice of medicine. No law body can. So we abandoned all concern with the method of practice, but we do say a whole lot about the preparation of the man who is to practice. We have made this observation since 1907, that when a man knows the basic science of medicine he is not going to go very far wrong so far as practice is concerned. His greatest sin will be lying about what he thinks and what he proposes to do.

This subject was discussed by Dr. Taylor, of Texas, and Drs. Bryant, Bangor; Gilbert, Portland; Garcelon, Lewiston; Marsh, Guilford; McNeil, Bangor; Miner, Houlton, and Mann, Houlton.

Dr. Taylor brought out the fact that we make a serious error in educating the legislature and in not educating the people. Thereupon, the motion having been duly seconded, it was adopted.

Dr. McNeil: We endorse the efforts for merging the JOURNAL OF THE MAINE MEDICAL ASSOCIATION with the *Boston Medical and Surgical Journal*, and

authorize the editor and Council to take whatever measures they may see fit to bring this about.

The amendment was duly seconded, and the article, as amended, was adopted.

Dr. McNeil: We further endorse the reports of the Legislative Committee, Venereal Disease Committee, Cancer Committee, Committee on Health in Schools, Committee on Hospitals and Committee on Public Relation. I move the adoption of this article.

The motion being duly seconded, prevailed.

On motion by Dr. McNeil, duly seconded, the report of the Reference Committee as a whole was adopted.

The President: Next is the report of the Nominating Committee.

Dr. Moulton: Mr. President, your Nominating Committee begs to make the following nominations:

The President and President-elect are taken care of in open session.

First Vice President, W. N. Miner, Calais, Me.

Second Vice President, Charles Bell, Strong, Me.

Secretary and Treasurer, B. L. Bryant, Bangor, Me.

BOARD OF COUNCILORS.

First District, E. W. Gehring, Portland, Me.

Second District, John Sturgis, Auburn, Me.

Third District, W. E. Kershner, Bath, Me.

Fourth District, George E. Young, Skowhegan, Me.

Fifth District, C. C. Knowlton, Ellsworth, Me.

Sixth District, A. K. P. Smith, Bangor, Me.

Scientific Committee—E. H. Risley, Waterville; T. J. Burrage, Portland; J. L. Johnson, Bangor.

Legislative Committee—L. P. Gerrish, Lisbon Falls; J. D. Phillips, Southwest Harbor; F. W. Mitchell, Houlton.

Committee on Venereal Diseases and Their Prevention—G. H. Coombs, Augusta; H. W. Stanwood, Rumford; H. J. Hunt, Bangor.

Committee on State Hospitals—E. D. Merrill, Dover-Foxcroft; L. T. Snipe, Bath.

Cancer Committee—H. E. Thompson, Bangor; Mortimer Warren, Portland; John Hewat, Lewiston.

Committee on Health in Schools—T. A. Foster, Portland; C. A. Moulton, Hartland; H. D. McNeil, Bangor; J. A. Spalding, Portland; A. H. Parcher, Ellsworth.

Committee on Hospitals—C. H. Young, Portland; C. M. Robinson, Portland; G. H. Stone, Bangor.

Committee on Medical Defense—E. G. Abbott, Portland; Allan Woodcock, Bangor; W. G. Chamberlain, Fort Fairfield; E. V. Call, Lewiston; George E. Young, Skowhegan.

Committee on Public Relations—F. W. Mann, Houlton; E. D. Merrill, Dover-Foxcroft; R. D. Small, Portland; C. F. Kendall, Augusta; G. A. Coombs, Augusta.

Neerologist—J. A. Spalding, Portland.

Delegate to A. M. A.—B. L. Bryant, Bangor; Alternate, W. E. Webber, Lewiston. F. Y. Gilbert, Portland; Alternate, L. P. Gerrish, Lisbon Falls.

Delegate to National Council—E. W. Gehring, Portland.

Delegates to State Societies—New Hampshire, T. A. Foster, Portland;

Vermont, George E. Young, Skowhegan; Massachusetts, S. N. Marsh, West Enfield; Rhode Island; E. H. Bennett, Lubec; Connecticut, E. S. Merrill, Bangor.

Visitors to State Sanatoria—J. A. McDonald, East Machias; Lester Adams, Hebron.

New England Council—President; Secretary; L. P. Gerrish, Lisbon Falls; F. Y. Gilbert, Portland; W. E. Ellingwood, Rockland.

It was voted to accept the report of the committee.

The President: There are two committees to be appointed by the chair. One is an Insurance Committee, to look into the matter of health, accident and automobile insurance, and report next year. The Chair appoints Dr. Campbell, of Augusta, Dr. Young, of Skowhegan, and Dr. Ralph Goodwin, of Auburn.

On the committee to revise the by-laws and bring them up to the standard of the American Medical Association the Chair appoints the Secretary, President and President-elect.

Dr. Gilbert: On the question of revision of the by-laws, the matter has been brought up at this session of honorary membership. We haven't any such group or classification. I would move that the committee on by-laws also consider an amendment to create an honorary membership.

The President: That will lie over until the next meeting. Next is the budget report.

Dr. Bryant:

President's expenses,	\$ 100.
Salary Sec. and Treas.,	100.
Stenographer and travel,	350.
Legislative Committee,	100.
Other committees,	100.

Councilors,	100.
Journal,	1,000.
Delegates to A. M. A.,	300.
Public Health Clinics,	200.
Medical defense,	300.
Annual meeting,	300.
Secretaries' meetings,	75.
New England Council,	200.

\$3,225.

Relative to the New England Council, I understand there are five members from each State. I think that all the

expenses of delegates from the New England States will be pro rated so that the burden will rest equally on all. I move that the budget be adopted.

The motion, being duly seconded, prevailed.

The President: Next is the place of meeting for next year.

On the motion by Dr. Young, duly seconded, it was voted to accept the invitation from Kennebec County and meet at Belgrade Lakes.

Voted to adjourn.

TRANSCRIPT OF PROCEEDINGS AT THE SEVENTY-FIFTH ANNUAL MEETING OF THE MAINE MEDICAL ASSOCIATION

First General Session

A symposium was held at Maine Eye and Ear Infirmary, Tuesday morning, June 14, 1927, at 9.00 A.M.

President Gerrish: Dr. E. R. Blaisdell, of Portland, will open the symposium on metabolic diseases.

Cases were then exhibited and discussed by Dr. Blaisdell, whereupon the symposium adjourned until afternoon.

Second General Session

TUESDAY, JUNE 14, 1927, 2.00 P. M.,
AT THE EASTLAND

The meeting was called to order by the President, Dr. L. P. Gerrish.

Prayer was offered by the Very Reverend J. Arthur Glasier.

President Gerrish: The address of welcome will be made by Mr. Philip J. Deering.

Mr. Philip J. Deering: Mr. Chairman and Members of the Maine Medical Association: One of the pleasant duties of my job is from time to time to wel-

come strangers within the gates of Portland. This Association, I know from my own experience, is doing a wonderful work. Particularly I have reference to the City Home and the City Hospital. No body of men is more worthy of receiving a welcoming message. We have recently had a wonderful demonstration of a young man who went to Europe and brought back a message to our own country, a message of good will, most marvelous to my mind, a demonstration that we in this country cannot fail to reckon with. Here in Maine we have a lack of that quality of good will. My message to you as representing the city government of Portland while you are with us is that we will do everything we can to make your stay pleasant, in the hope that you will enjoy the city and go away with this same feeling of good will. Recently Portland has been accused of trying to "hog" things—rather a poor word, but it covers just what I mean. We in Portland do not try to "hog" it. We try to do everything we

can to improve Portland and thereby help the city, and my message to you on the part of the people of Portland is to carry back to your home towns this one message, that we have the greatest good will towards every city and town in the State of Maine, and that we begrudge them nothing that is for their own benefit and advancement. This is the message that I wish you to take home, and we assure you that we hope you will come again. I thank you.

The President: I assure you that our Association appreciates the kind words of welcome.

(The Secretary, Dr. B. L. Bryant, in the chair.)

The Chairman: We will now hear the address of our President, on "Medical Standards."

President Gerrish reads.

President Gerrish: I will suggest in the carrying on of this symposium that papers be read, one after the other, and that the discussions be taken up after all three papers are read.

Before we proceed with the papers, I would call on Dr. Thomas J. O'Brien, delegate from the Commonwealth of Massachusetts. [Applause.]

Dr. O'Brien: Mr. President, and Members of the Maine Medical Association: We have just completed our convention at the Hotel Statler, Boston, at which I was honored by being appointed a delegate to your convention. No medical society is a success unless it does three things equally well, namely, further the purposes of scientific medicine, promote public health work, and give an opportunity of personal contact. We have no trouble with the first and third, but we are having great trouble with the question of public health. Under this heading come all the ideas of

the layman and the public press, and it seems to me that we must organize; we must be closer in touch and in sympathy. In Massachusetts we have several well organized bodies who are opposing medical science, the healing art. I refer to the Christian Scientists, the Medical Liberty League, the cults. We find these bodies well organized and well supplied with money, with headquarters, with publicity agents, well paid attorneys and lobbyists at the State House. Opposed to these we have officers who try to do their work well in medical practice. We have learned our lesson and we now have headquarters. We, too, have an executive secretary, and we, too, have a corps of typists, stenographers, manifolders and so on. It is a matter of organization. In the recent fight with the chiropractors in our State, they presented the largest lobby that has been in the Massachusetts State House for years. Their legislative agent received \$6,000 for his efforts—his individual efforts. So you get an idea of the opposition to scientific medicine. When I tell you that some of these senators and representatives received as many as 2,000 letters, telegrams and personal interviews to oppose the bills that were introduced by the Massachusetts Medical Society and to favor those that were opposed to us, and when I tell you that those same senators and representatives did not receive one letter or interview from his physician, see what chance we have with matters of a political nature. The Massachusetts Medical Society has no legislative agent; it has no fund for political purposes. Our President, Dr. Stone, who has just gone out of office, and whom I hope will address you to-night, was obliged to fight these trusts—if I may call them that—

with business methods. He did it in this way: He reached by letter, telephone or telegram the workers in the different parts of the State and got those different doctors to present our side. I think the time has come when we can no longer remain quiescent and allow things to go on. We must adopt business methods. It may interest you to know that we were defeated until we reached the very last ditch. We were defeated in the Senate and were defeated in several committees; but at the last meeting the House of Representatives rejected the chiropractic bill. The Shepard-Towner bill has also been defeated in our State. We want no help from the federal government and we want no opposition from chiropractors and cults of that sort. If we organize, and each man does his duty, they can be defeated. I only speak of this because I feel that you should know what you have been through, and that each of you should feel that he has a duty to perform, and unless your legislators are interviewed by the physician in the township or city, you cannot blame them if they vote against you. I thank you. [Applause.]

President Gerrish: The Massachusetts Medical Society sends to us another representative, Dr. J. P. Blake, of Boston, Mass., from whom we would like to hear.

Dr. Blake expressed his pleasure at being present at the meeting and spoke of his recent trip abroad.

The President: We will continue the symposium which started so well this morning at the Eye and Ear Infirmary. Dr. H. F. Hill, of Waterville, will read a paper "The Significance of Early Retinal Changes in Arteriosclerosis," and show us some pictures.

Dr. Hill reads.

The President: The next paper is by Dr. G. G. Duncan, of Philadelphia, "Classification of Nephritis." Dr. Duncan is a member of the faculty of the Jefferson Medical College and attending physician at the Pennsylvania Hospital.

Dr. Duncan reads.

The President: We are all familiar with the Allen treatment, and much work has been done all over the world in diabetes; but I think it remains for Dr. Allen to lay the foundation for the modern dietetic treatment of that disease. It is a pleasure to introduce Dr. Frederick Allen, of New York City.

Dr. Allen reads.

The President: Is there any member who will add anything to this discussion? If not, I will say that this has certainly been a very fine symposium, and I think we all feel well repaid.

Adjourned.

Third General Session

WEDNESDAY, JUNE 15, 1927, 10.00 A.M., AT THE EASTLAND

The meeting was called to order by President Gerrish.

The President: The first paper today is by a physician who did excellent work in the last legislature, a gentleman of dignity and one very much interested in matters of public health, Dr. E. D. Merrill, of Dover-Foxcroft.

Dr. Merrill reads.

The President: The next paper will be by Dr. J. S. Rodman, of Philadelphia. Dr. Rodman is the son of a former President of the A. M. A. His subject will be "Cancer of the Breast." Dr. Rodman.

Dr. Rodman: Mr. President and

Gentlemen: First of all, I wish to express my pleasure at being here with you. It is rather a novel experience for me to be in Maine on anything but pleasure bent. Some of my most pleasant vacation days have been up in this country on your ponds and streams with a fly-rod; but I have never been up this way before on an occasion of this kind.

Dr. Rodman reads.

Adjourned.

Fourth General Session

WEDNESDAY, JUNE 15, 1927, 2.00 P.M.,
AT THE EASTLAND

President Gerrish in the chair.

The President: As I said last evening, wherever you travel in Maine, and at the medical meetings, we find men from Massachusetts who are taking an active part in our medical deliberations. I think that quite often Dr. D. F. Jones, of Boston, has given us his valuable assistance. We are more than glad to have him with us this afternoon. Dr. D. F. Jones, of Boston.

Dr. Jones reads.

The President: The next paper is by Dr. J. L. Johnson, of Bangor, on

"Endoscopy in Diseases of the Air and Food Passages."

Dr. Johnson reads.

The President: Dr. F. B. Ames, of Bangor, will continue this discussion from a different angle—"Roentgenological Aspects of Diseases of the Air and Food Passages."

Dr. Ames reads.

The President: Next in order of business is the report of the House of Delegates.

Secretary Bryant: Gentlemen, this can easily be passed over by you because it will all be published in the next JOURNAL, and I simply summarize here.

According to the report of the Treasurer, last year there was spent \$2,583.27. The balance of cash and securities in the treasury is \$10,293.35.

In regard to membership, last year we had a membership of 797; this year 801. New members, 27; reinstated, 3; moved away, 6; died, 16; resigned, 5. There is a possibility of from 900 to 925 physicians eligible here in the State of Maine, and we have over 800 of them in the Association.

As regards the budget for the next year:

President's expenses,	\$ 100.00
Salary Secretary and Treasurer,	100.00
Stenographer and travel for Secretary,	350.00
Legislative Committee,	100.00
Other committees,	100.00
Councilors,	100.00
Journal,	1,000.00
Delegates to A. M. A.,	300.00
Public Health Clinics,	200.00
Medical defense,	300.00
Annual Meeting,	300.00
Secretaries' meetings,	75.00
New England Council,	200.00
Making a total budget of	\$3,225.00

The report of the Reference Committee which was adopted by the House of Delegates:

Your Reference Committee, appointed by the President, begs leave to report:

We heartily endorse the secretaries' and officers' meetings that have been held during the past year, and recommend that the same procedure be carried out under the guidance of our Secretary.

We approve the action of the Committee on Public Relations, State Board of Health and Maine Public Health Association, governing the work of health nurses in towns and counties.

We again urge that all members of our society take advantage of our liability insurance. Some of our members are taking chances in not being insured, and it is essential for them as a matter of protection to see that they are fully covered by liability insurance of some form, and we recommend the group insurance as carried by the members of the Maine Medical Association.

We recommend that this Association join the New England Council and take part in its deliberations, as we feel that by so doing close relationship will exist and matters pertaining to New England as a whole will have much closer consideration through the formation of this council. We furthermore recommend that this Association send delegates, and pay our pro rata share of the expenses.

We again recommend that the society hold clinics throughout the year at certain cities that they may designate, in order that every doctor who has not close connection with a hospital may gain knowledge of what is going on in medical lines.

The much discussed and many times

debated bill on medical licensure is again brought to our attention. Our Legislative Committee, in conjunction with members of our Association who take an active part in the legislature, we believe should have the power to have a consultation between any attorney or attorneys they shall select and any attorney or attorneys of one of the cults who tried hard at the last legislature to have certain bills passed in their favor, and who were defeated in their attempts, and have them arrive at some conclusion that would be acceptable to all. We feel that eventually they will win out, and it would be for our interest to have some one bill passed that would stop all the fruitless discussion that has gone on in the past.

We endorse the efforts for merging the JOURNAL OF THE MAINE MEDICAL ASSOCIATION with the *Boston Medical and Surgical Journal*, and authorize the editor and Council to take whatever measures they may see fit to bring this about.

We further endorse the reports of the Legislative Committee, Venereal Disease Committee, Cancer Committee, Committee on Health in Schools, Committee on Hospitals, and the Committee on Public Relations. We wish to thank the members of the Cumberland County Society and the manager of The Eastland for all they have done for our comfort and entertainment.

Voted, that the next meeting be held at Belgrade Lakes, in June, 1928.

The President: It is the custom of our Association to elect at this time a President-elect. The chair awaits nominations.

Dr. Moulton: Mr. President and Members of the Association: I wish to place in nomination a man who is not

only known to the members of our Maine Medical Association, but a man whose reputation for fairness in organization has penetrated far beyond the confines of our State; a man who has served us long and well as editor-in-chief of our own MEDICAL JOURNAL; a man who has given of his time and skill to the many health activities of the State, without remuneration received or expected; a man whom I am sure will serve us with wisdom and fidelity. It therefore gives me great pleasure to nominate to the office of President-elect Dr. F. Y. Gilbert, of Portland. [Applause.]

Dr. Thompson, of Bangor: Mr. President, it gives me very great pleasure to second the nomination of Dr. Gilbert for President-elect of this Association.

Dr. Twitchell, of Portland: Mr. President, as a neighbor and friend of Dr. Gilbert, it gives me great pleasure to also second the nomination.

On motion by Dr. Mann, of Houlton, duly seconded, it was voted that the nominations for President-elect close, and that the Secretary be instructed to cast the ballot of the Association for Dr. F. Y. Gilbert, of Portland, as President-elect.

Thereupon the Secretary performed the duty assigned him, and Dr. Gilbert was declared duly elected President-elect for the ensuing year.

Dr. Gilbert: Mr. President, I fully appreciate the honor and opportunity to serve. Of course for a good many years I have done the work of editor of the JOURNAL, and I can only promise that in the next two years I shall be glad to put the same energy and time into this work that I have been doing for the last eighteen years. I thank you most kindly. [Applause.]

The President: Owing to the death of the President-elect last year, it will be necessary at this time to elect a President. The Chair awaits a nomination for the office of President of this Association.

Dr. Stanley P. Warren: Mr. President and Gentlemen: I believe I am one of the oldest living members of this Association. At any rate, this is my fiftieth year attending the State meetings. In that time I have learned one thing, and that is that the President of the State Association must be, like Caesar's wife, beyond suspicion. I rise to put in nomination for President of the Association for the next year a gentleman whom I have been associated with nearly all of these fifty years. I know him; he is one of our popular men. He has the age, the capacity, the brains and the good looks for the position. I nominate for the position of President of this Association for the next year Dr. Herbert Twitchell. [Applause.]

Dr. Mann, of Houlton: Mr. President, it always affords me pleasure to say good things of good people. In this instance, however, our friend is so well and so favorably known that an eulogy of any sort is absolutely unnecessary. I am sure that we all regret the sad circumstances that have brought about his nomination for the presidency for the ensuing year. I have very pleasant recollections of our late friend, Dr. Marshall. I am very, very happy to second the nomination of a Portland man to take his place, and it affords me great pleasure to second the nomination of Dr. Twitchell for President for the ensuing year.

On motion by Dr. Cummings, duly

seconded, it was voted that the nominations cease.

On motion by Dr. Sturgis, of Auburn, duly seconded, it was voted that the Secretary cast the ballot of the Association for Dr. Twitchell as President of this Association for the ensuing year.

Thereupon the Secretary performed the duty assigned him, and Dr. Twitchell was declared duly elected President of this Association for the ensuing year. [Applause.]

Dr. Twitchell: Mr. President, Members and Friends: I feel very much overcome at the honor you have conferred upon me. I will not try to express my feelings further than it is my duty to pay my respects to the memory of Dr. N. M. Marshall, who, had he lived, would have been occupying this place at this time. He was a man entirely devoted to his profession, a good

friend, honorable in his transactions, and he leaves a vacant place not only in our society, but in the community at large. I move you, sir, that we, in honor of his memory, rise and stand one minute.

The members thereupon stood for a moment in respect to the memory of Dr. Marshall.

Dr. Twitchell: I thank you all for the honor you have done me and for the very pleasant words of those who presented the nomination. I feel that I do not deserve all that has been said, but with your co-operation, gentlemen, I will try to fill the office as it should be filled. [Applause.]

President Gerrish: A motion to adjourn is in order.

Thereupon the annual meeting was adjourned.

NECROLOGY

Anson Morrill Andrews, Gray, 1877-1926

Born in Gray, April 18, 1877, the son of Dr. Egbert Tilton and Emily Mills Andrews. He studied in the village schools and at Kent's Hill, and at the age of twenty-four obtained his medical degree at Bowdoin, presenting an unusually scholarly thesis on "Tabes." He was held in such esteem as a student that he was elected an interne to the Maine General Hospital, did excellent service there, and after his term of service was over married Miss Carolyn M. Southard, a trained nurse.

Dr. Andrews settled in Gray and practiced there until his death, on October 2nd, 1926, when he was in-

stantly killed as a trolley car coming from behind dashed across the path of his car.

Bial Francisco Bradbury, Norway, 1861-1927

Born in Springfield, February 5, 1861, the son of Osgood Nathan and Ella Scribner Bradbury. In 1871 the family moved to Norway, where the boy had a good education. He graduated with honors from Bowdoin Medical School, and in 1882 received his medical degree from the Southern Medical College, at Atlanta, Georgia.

Dr. Bradbury settled in Norway, later studied post-graduate in New



DR. BRADBURY

York and was appointed with the rank of Major Surgeon General of the National Guard of Maine.

During the Spanish War he served as Lieutenant Colonel. His offer of services for the World War being excused on account of high blood pressure, he worked for the Red Cross and served as surgeon in the Fifteenth Division, doing very effective hospital work. Later still he was appointed surgeon to the Veterans' Home at Togus, an office which he held at the time of his death.

Dr. Bradbury died suddenly April 22, 1927.

Frank Herbert Jordan, Fryeburg, South Portland and New Bedford, 1868-1927

Born in Milton, N. H., September 13, 1868, the son of George Ivory and Elizabeth Downs Jordan. He obtained

his medical degree at the Bowdoin Medical School in 1899, and practiced in Fryeburg and South Portland. He did good service during the war and afterward specialized in genito-urinary diseases in New Bedford.

He died suddenly March 21, 1927, from myocarditis, the result of a serious attack of influenza.

Anson Augustus Cobb, Auburn, 1868-1927

After a lingering illness, Dr. Cobb, the son of Dr. Albion and Louise Stockman Cobb, died suddenly at Auburn, March 26, 1927. He was born in Caseo, January 31, 1868, educated in the common schools, taught a while, attended lectures for two terms at the Bowdoin Medical School and obtained his medical degree at the University of Vermont in 1892. He studied abroad for some length of time, and then, coming home, married Miss Anna Bailey, daughter of Hiram and Louise Work Bailey, of Meehanic Falls, who, with a daughter, survives him.

He served for some time on the staff of the Central Maine General Hospital, but ultimately opened a handsome private hospital, with twenty beds, in Auburn. Around this as a nucleus, equipped with all modern improvements, he soon built up a handsome eye, ear, nose and throat practice, and was considered by his numerous patients as unapproachable for skill. At one time he thought that he had discovered a positive cure for deafness in the violet rays, but his expectations, as well as those of his many patients, were not fulfilled. He wrote a paper on "Presbyopia," but hardly any others,

and was a man who kept very much to himself, so that his skill in special surgery as an operator and his successes in medical treatment were the property, mostly, of his private patients. He does not seem to have attended medical meetings often, or to have invited the confidence of his confreres in special surgery, but he leaves a memory held very dear and very high by the many who consulted him and trusted in his ministrations.

**Charles Emery Williams, Houlton,
1857-1926**

Born in Waterville, January 30, 1857, the son of Hanson and Caroline Woods. He graduated from Colby College in 1874 and obtained his medical degree from the College of Physicians and Surgeons in New York in 1883. Dr. Williams was obliged to abandon his practice in 1910, owing to a spinal sclerosis, which lasted until his death, July 13, 1926.



DR. WILLIAMS

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No. 8

*MEDICAL STANDARDS

By L. P. GERRISH, Pres., Lisbon, Falls, Me.

Considerable interest has been shown, of late, in regard to Maine's future. The possibilities and development of our resources have been paramount in popular thought, and this may well be so. In the swift rush of events, our minds are focused on the marvelous accomplishments of general science, with too little thought of fundamentals. Medicine is an art and science. It is a cornerstone in the structure of human progress. It is closely interwoven with all pursuits. The problem of the "fit and unfit" is *vital*. We are yearly enlarging our State institutions, and the care of unfortunates is of deep concern to all. We are building structures of brick and stone—materially we are progressive, but we, as a State, are giving too little thought to standards which should govern the healing art.

In the early history of our State, men well trained in the art of healing lived and toiled, and built into the hearts of their fellows a lasting confidence. The standards among medical men of that time were of a high order. As we have read the obituaries of those erstwhile physicians, how often have we noted,

graduated at Bellevue, at Bowdoin, at Dartmouth! And so zealously were those standards guarded, that history fails to reveal the presence of wholesale irregularity in that period.

Then came a World War—a post war period—fraught with disturbing tendencies. With other commodities, the cost of medical education advanced, and more time was advocated for its completion, so that men sought the larger centers where financial returns appeared more certain, and with this there developed the desire to specialize. The smaller towns and villages have shown a distinct falling off in number of physicians in the last decade. Around these centers are clustered, for the most part, the homes of those engaged in agriculture, over which we now feel considerable concern. As we observe the physicians who practice outside the cities, we find for the most part men over fifty years of age.

During this period there has developed an influx of men and women with good intentions, who have presented specific theories relating to the healing art. As I have pointed out, an actual

*President's Address, delivered at the June meeting of the Maine Medical Association, at Portland, Maine.

need for service exists; new men must fill the vacant places. Concomitant with the gradual decline in the number of physicians outside cities, there has come about a slow but steady growth of those who would heal the afflicted by some special methods. It was stated on the floor of the Maine Senate a few months ago, that during the last fourteen years in Maine the number of such in one specified branch has increased 500%. Now of certain groups, each with special methods, it is true, State Boards of Examiners have been created in recent years. Law licensing those of certain opinion to practice within their sphere is not a recognition of the matter in question any more than license is a recognition of a particular make of automobile. The practice of the healing art is not an exclusive right. It is not the business of the State to suppress any and all competitors. It should insist on educational standards high enough to protect the child, the mentally incompetent and the public. But in a multiplicity of Examining Boards, there creeps in an element of inconsistency and danger. A group of men and women came to the 83rd legislature of Maine asking for the right to practice obstetrics. As the years have passed, they have come to realize the value of other forms of treatment different from their own. They have acquired a broader viewpoint and are desirous of rendering service through obstetrics and the use of certain drugs and medicines. But they wish to accomplish this through a composite board of examiners and this does not anger well for Maine's future, and why! It really amounts to a letting down of the bars. It is the creation of a new way to the practice of medicine without the degree M. D.,

obtained through the medium of uncertain standards. If there stood along this way anyone who aspired to the practice of medicine whose qualifications and training were to the point in question, we who carry the degree M. D. would be last to stand in his way, for there is and there will continue to be a real medical service in this State to be performed, but in truth there exists a trail of men and women with good intentions, at intervals apart; a group below waits for the one above to gain a lap and to accomplish for itself that which the one ahead may have gained.

The method in vogue is to go before our legislature with statements of fact, brought in by men from distant climes showing the specific training and qualifications of the aspirants, before a lay committee wholly unqualified to pass judgment on matters relating to scientific medicine. If the matter in question were one of publicity or one of water powers, a recess committee would be appointed by the legislature to ascertain the facts, but in the matter of public health and public welfare, only the statements of men from far-away States are available. This system is wrong in every detail and is sure to place Maine in an undesirable position, for if the privilege of practicing medicine is granted to one particular aspirant, there is no valid reason why others should be denied.

Maine has no medical school; she must replenish the ranks with men from other States. Shall these men be the M. D.'s of other States, or shall groups with diversified methods engage in the healing art, through the medium of the easy way with standards established by a composite board?

We, as physicians, are conscious of

the vagaries of the public of which we are a part. In these days of "wonders in science," the laymen can hardly be blamed for making a trial of anything which might appeal to his craving doubts. It is not difficult to convince him that the spirit world may communicate with him, that thought transference is possible; it gives him a certain pleasure to think that there are mysterious persons who can "read his mind." His own trade he knows, but beyond this, he possibly knows nothing very thoroughly. He has firm convictions about the causes of health and disease, and readily prescribes for known ailments; he freely recommends this or that form of treatment.

Ingrained through all human nature is more or less of superstition, and markedly so in matters relating to the healing art. With him who would but

try to heal there is a dormant sympathy. The wheat must be sifted from the chaff. It is far from the thoughts of our professions to say which is which, and we welcome, with open arms, any and all who might render service in the healing art, by this method or that. These methods of to-day may possess a virtue far beyond what we now admit. There may appear in the future methods of distinct value.

But we insist that certain educational standards must furnish a working basis for all. We, as physicians, are fully aware of these conditions, and with no self-conscious motives do we affirm our interest in the common weal. Effective educational regulation and educational co-operation will insure "service" and make secure the position of our beloved State of Maine.

*SAFEGUARDING OUR PATIENTS

By DR. EDWARD H. RISLEY, Waterville, Maine.

It is undoubtedly true that the larger our surgical experience, the more often is the fact brought home to us that a good end-result is not always the outcome of even the best quality of surgical work on the operating table. Even the surgeon who is *most* careful and painstaking in his technic, and who is constantly on the alert to improve his methods and his end-results, every once in a while is rudely awakened to the realization of his limitations by some unlooked-for, poor or unsatisfactory result, occurring when least expected, and perhaps when apparently already guarded against. This paper is pre-

sented with the idea of analyzing some of the reasons for these unexpected results, and of discussing methods of safeguarding our patient and our operative procedure in every way possible.

We must recognize at the very onset that the surgeon's duty does not begin, neither does it end, at the operating table. The very first principle of safe surgery should be founded on a *complete* and *thorough* physical examination, and this presupposes a careful, searching history-taking.

If I were to criticize our present methods of preparing our patients for operation, I would state that it is my

*Read before the Kennebec County Medical Society.

firm belief that we none of us know anywhere near enough about our patients before we operate them, and this is particularly true of our knowledge of their past history. It is *most* essential that we *do* know our patient's past history, especially in regard to infectious diseases, genito-urinary difficulties, respiratory infections, and life habits, for only with an accurate knowledge of the past history in our minds can we properly evaluate the different phases of the disease for which the patient seeks surgical relief, unless it be of the simplest nature, and even then a complete knowledge of the past history will often be of greatest value in determining the procedure to be carried out.

When I speak of a *complete* physical examination, I mean one that can be made by the surgeon himself, in his own office, without the aid of special apparatus. It should give him an exact knowledge of the following: Height and weight, skin and glandular areas of the whole body, the superficial nerve reflexes, the reactions of the pupils, condition of ears, teeth, tonsils, mucous membranes of mouth and nose, motions of the spine, sacroiliac joints, posture, arches, varicosities of the chest, abdomen and chest, and, with the chest entirely bare, the condition of the heart, lungs, pleuræ and mediastinum (by auscultation, palpation and percussion); the same of the abdomen, with special reference to the liver edge, umbilical, inguinal and femoral rings, and the palpability of the kidneys and spleen; then the condition of the genitalia, and lastly, but by no means least, a *routine rectal*

examination in every case (too often has rectal stricture or carcinoma been diagnosed as epilepsy, brain tumor, Bright's disease, and many other pathological conditions except that which it would have been diagnosed had a routine rectal examination been made); blood pressure, hemoglobin, urinalysis, blood smear, and perhaps blood for Wassermann or sputum, should these be indicated.

Such an examination, as outlined, takes roughly from one-half to three-quarters of an hour, and the time lessens with practice and the simplicity of the case. But even if it took an hour, for the sake of one's peace of mind and the patient's safety, it would be an hour well worth spending on every patient who needs a surgical operation. Most patients appreciate this painstaking effort, and all but the very ignorant are very willing to co-operate. Only the surgeon who gives as much attention, as a routine, to his pre-operative cases has taken the first and fundamental step in safeguarding both his patient and his operation. Having made this type of examination, the surgeon is then in a position to know whether his patient's chances can be bettered by consultation regarding the eye, ear, nose and throat, by gastric analysis, cystoscopy, X-ray, or other special examination.

Having made our diagnosis and decided that our patient needs a surgical operation, we may now ask in what ways can we further safeguard our operative procedure and our patient.

The hazards of surgery, barring those

due to the direct results of faulty technique, divide themselves into three groups, which have to do with some complication involving

- A. The respiratory system:
- B. The circulatory system:
- C. The urinary system.

How can we assure ourselves that we will have no complications from these organs after operation? We cannot absolutely do so, but we can at least give ourselves a reasonable assurance that we will get the minimum reaction if we follow out the line of treatment indicated by the knowledge obtained from our careful history and physical examination.

A. RESPIRATORY SYSTEM AND CHOICE OF ANESTHETIC.

If there is no history of pulmonary tuberculosis, persistent cough, or other recent respiratory infection, such as the ordinary head cold or mild bronchitis, and the lungs are absolutely clear, we may consider it safe to use general ether anesthesia and expect no ill result. But, should the past history be suggestive or the physical examination be suspicious, we are much safer to do our operation under gas-oxygen and local, local alone, or even spinal anesthesia, depending upon the region of the body to be operated. We believe that all herniæ are better done under spinal or local, thus avoiding the post-operative vomiting strain on the suture line, and especially is this true of the strangulated kind, where there is always a certain amount of toxemia present and therefore a definite danger of post-opera-

tive kidney or lung complications.

Because it is the pleasantest anesthetic to take, because of the practical absence of post-operative nausea and vomiting, because of the decided lessening of post-operative kidney and respiratory complications, we believe that gas-oxygen is the anesthetic of choice in the very great majority of cases. It is, of course, contraindicated in the very young, in those who have been on a starvation diet, and in those with a marked arteriosclerosis; but, in practically every other condition, it is an anesthetic which gives comfort to the patient and the operator alike. In the majority of abdominal cases, a satisfactory relaxation is obtained by the preliminary medication; but if one finds that this is not enough, a sufficient relaxation can easily be obtained by the use of local novocaine infiltration of the wound.

Experience has taught us that it is wise to make it a hard and fast rule that no patient who has had a recent head cold, tonsillitis, bronchitis, or other respiratory infection, shall be operated on less than two weeks after the complete subsidence of all symptoms and signs of this infection, the reason for this rule being not only the avoidance of a possible lung complication, but the avoidance of a complication occurring entirely outside of the respiratory tract, namely, wound infection, which we have encountered several times in patients who had had mild respiratory infections some weeks previous to operation. In all of these patients the temperature had been normal for over

ten days, the pharynx and lungs were negative, and yet each had a low grade infection in the wound, which confined the patient to the hospital nearly two weeks longer than usual. It is true that all of these cases were in large, fat people with low blood pressure and poor resistance or physical tone, and all were operations of some necessity. These patients undoubtedly had a mild systemic infection which could not be demonstrated clinically, but which was still a source of danger to them. We have, therefore, learned to be extremely cautious about operating such cases for from one to three weeks after the complete subsidence of any such respiratory infection, unless, of course, the case be one of absolute necessity. If such a case presents itself, we are by far on the safer side if we use gas-oxygen, as far as lung complications are concerned. On the other hand, it is found that many patients even with an active bronchitis *can* be carried safely through an emergency operation under gas-oxygen with little discomfort and no post-operative increase in the respiratory difficulty.

We consider gas-oxygen, given by a competent anesthetist, one of the greatest blessings of surgery to-day; and, when combined with a skillfully administered local anesthetic, even very difficult operations can be carried out expeditiously and with safety even on very poor risks. If every sizeable community in the state had one man who could give a good gas-oxygen and surgeons would avail themselves of it in practically all cases, we feel very sure

that the general post-operative morbidity from kidney and respiratory complications would be greatly reduced.

B. CIRCULATORY COMPLICATIONS.

It was formerly believed that even greater care than was necessary in respiratory cases must be exercised in deciding the operability of a patient with any circulatory complication. But the great improvement in handling anesthetics in recent years has shown that our fears regarding the giving of an anesthetic, even to a crippled heart, were often exaggerated; and it has been proven that even the patient with a considerable amount of cardiac impairment, if properly handled, can go safely through the ordinary operation with no harm. The old saying that "the patient's heart was not strong enough to stand ether" rarely at present holds good. If we have examined the heart and know the character of the lesion and the blood pressure before operation, if the ether is carefully given by a skilled anesthetist, and if our operative work is as quick and gentle as possible, little harm is ever done to the heart case at operation. A heart death following operation is nowadays a rarity in the experience of most surgeons. However, these facts should not in the least excuse us from exercising every precaution in preparing our cases for operation.

It is of utmost importance that every case with a demonstrable heart lesion, whether endocardial or myocardial, should have a record of not one but several blood pressure readings over a

period of several days before going to the operating table, and these cases should never be operated without an attempt by digitalization to stabilize the heart action and prepare it for the added burden put upon it by the anesthetic and the operation. Therefore all of our patients who give a history of previous heart trouble, or in whom a lesion of the heart can be demonstrated—and especially those with myocarditis—are put on a course of digitalis three to five days before operation. And we are very sure that the total absence of heart complications are accounted for by this precautionary method of preparation.

Lately we have been much interested in the work reported by Giest and Goldberger (*American Journal of Obstetrics and Gynecology*, August, 1922; *Ann. Surgical*, December, 1923), on the pre-operative digitalization of *all* patients in reducing post-operative complications, and we have now made it a rule to digitalize all of our operative cases, whether they have a demonstrable heart lesion or not. We take this precaution because of the well-known fact that in many cases the real weakness of the heart is not shown by the stethoscope or the blood pressure apparatus, and we consider this digitalization of *all* cases just one additional way of safeguarding our patient.

Under the heading of heart and circulatory system, the question of anesthesia again arises. And here also local, or local plus a carefully given gas-oxygen, is generally preferable to ether, except in those whose arteries

are sclerotic and whose blood pressure will not stand the added rise of from ten to thirty points which gas-oxygen sometimes gives in the more unstable cases. It is true, however, that most heart cases will go through the ordinary operation perfectly well under a carefully given ether. One of the main reasons why we prefer gas-oxygen, however, is that the heart case is so liable to have post-operative pulmonary complications and also impaired kidneys upon which ether may act as an irritant. In such cases, the general condition of the patient, the probable length of the operation and the skill of the anesthetist are the determining factors which should decide what form of anesthesia should be used.

C. KIDNEY COMPLICATIONS.

Undoubtedly the disasters due to kidney failure in all but bladder, prostate and kidney operations are comparatively rare, but when they do occur they are liable to be most unexpected and difficult to combat. The reason is obvious. The routine examination of the urine for albumen and sugar is in no way a proper guide to the kidney function, and unless we do a kidney function test, we really know very little about what a post-operative kidney will do. In the majority of cases it behaves perfectly well, but in a small percentage of cases it does not. How, therefore, can we safeguard our patient in this respect before operation? Unless we do a kidney function test, I know of no way except to make several, instead of one examination of the

urine before operation, being sure to know the 24-hour amount passed, and then to force fluids for three or four days before operation, recording the output, so as to be sure that the kidneys are able to respond with a greater output when called upon to do so. This forcing of fluids not only gives us this information, but flushes out the kidneys and puts them in better condition for operation than if it had not been done. We require our patients to drink three or four glasses of lemonade on the two to three days before operation, and have had no kidney complications when the patient has been properly prepared.

There is another condition in which we consider it most important to safeguard our patient. That is in acute or chronic anemia. It would seem wise to make it a hard and fast rule that no patient who has a hemoglobin under 60% (whether from recent hemorrhage or long-standing anemia) shall be operated on without a transfusion one to three days before the operation is planned. We are absolutely sure that we have carried many patients safely through the most serious operations by the employment of this measure, when they never would have survived the operation had a previous transfusion not been done.

Transfusion is one of the most valuable and necessary safeguards in patients with low hemoglobin and red count, and the transfusion of 500 c. c., or even only 200 c. c., of fresh blood will often convert the extremely hazardous risk into a very fair one; and

then, with an operation safeguarded in every other respect, and done under gas-oxygen, we have in our hands a means of saving and restoring to health many cases that would otherwise not stand any surgical procedure, no matter how much needed. (We could cite several recent cases, exsanguinated from uterine hemorrhage and pelvic sepsis, and whose lives were despaired of by the attending physician, who have been carried with extreme smoothness through very difficult operations to complete recovery by the use of a well-timed transfusion before operation.)

For use in emergencies, we have secured in our city, among college students, a "blood squad" of Wassermann tested and otherwise healthy young men to serve as donors for transfusion. We find this squad of very great service, for often a case will be found where there are no relatives available, or suitable, to act as donors; and, in such a case, to have at instant command a group of already tested donors is of greatest value.

We are convinced that transfusion should be used a great deal more than it is, not only to make up recent losses of large amounts of blood, but as a valuable therapeutic agent in many chronic cases in which the patient's resistance is lowered by any disease which produces a marked anemia. It is not within the province of this paper to discuss the many conditions for which transfusion can be used, but we are very strongly of the opinion that it is one of the most valuable means of safeguarding the anemic patient before

operation, and we know that there are many cases whose convalescence could be greatly shortened if transfusion were used also as a post-operative remedy, instead of giving iron and other tonics, which are at best slow to work and often of uncertain value.

There is yet another class of patients, not falling distinctly in any of the above groups, in whom even greater watchfulness should be exercised. These are the patients in a generally below par, or frankly poor condition, in whom there may not be found anything radically wrong with circulation or kidneys, but whom we know to be of a low type of resistance, and hence in the class of poor risks. The prematurely aged, whether with or without high blood pressure; the gastric case, who has been on a more or less starvation diet; the patient with recurrent incarcerated or strangulated hernia; the woman with chronic pelvic sepsis; the mild diabetic, and many others of a less determinate type. All of these cases should be put at once in the poor risk class, and should therefore be given the benefit of our most earnest efforts to lift them out of this group before we even consider doing surgery on them.

This type of case needs, first of all, hospitalization and treatment under constant supervision for from one to six days or longer before operation. They need rest, careful diet, mild elimination, forced fluids, possibly glucose by rectum or vein, water by mouth and under the breasts, and careful study and check-ups on their condition from day to day. One should be less eager

to operate such a case than to assure himself by careful preliminary treatment that he can convert his poor risk into a reasonably good one on whom the necessary surgery can be safely done and himself assured of a living patient.

The question of wound infection is one that nowadays rarely, we are glad to say, gives us cause for much concern; and yet, every once in a while, such a thing crops out in cases that seemingly have been handled as carefully as others which show no infection.

We are rather inclined to the opinion that wound infection is *rarely* due to catgut, unless one uses it in the skin. Formerly it has been the habit of surgeons to blame catgut for every infection in clean cases, but if one now uses a standard catgut made by a reliable firm, and the tubes are properly handled after removal from the container, we believe one should look elsewhere for his source of trouble. There are two definite sources of wound infection. One exists in the patient himself, and the other comes from some outside source. Mention was made in the first part of this paper of cases in which wound infection occurred in patients who had had, some weeks before operation, a mild respiratory infection. In these particular cases, there is no doubt in our minds that the infection was a systemic one. On the contrary, it is comparatively rare that the whole wound of a drained appendix case breaks down, probably because this is a more or less local infection and not one from the blood stream.

The principal reason for not suspect-

ing catgut is that there are often much more likely and obvious sources of infection, and these are of a more powerful infecting agency. These include 1. The unmasked etherizer. 2. The unmasked operating room attendant. 3. Improper masking of the surgeon or his assistant. (The mask that covers the mouth but not the nose is, to our mind, absolutely unsafe and gives a very false sense of security—it prevents one from speaking, but not from breathing into the wound.) 4. An assistant with a chronic nasal sinus, possibly unknown to himself. 5. The use of the handle of the “dropped” knife for blunt dissection. (The knife that is simply dropped in alcohol is never sterile. It should be boiled instead at least two minutes, and even this sterilization is not sufficient to render it safe for anything but incision and knife-edge dissection.) 6. Failure to protect the cut skin edges of the wound by properly applied towels so that particles of epidermis are not rubbed off and contaminate the wound. These are the principal sources of outside wound infection. We are sure that many of the infections that the surgeon has can be traced to these seemingly simple errors in technic.

There is one other way in which we can safeguard our patient before operation, and one about which I am afraid the average busy surgeon seldom thinks enough. This I may refer to as psychic safeguarding, or that of making a little personal effort to try and put the patient in the proper mental state in which to go through his surgical ordeal.

The profession at large is notoriously non-communicative regarding the very things that are of greatest concern to the patient. The patient is often told, rather bluntly, by his physician or a consulting surgeon that he needs a surgical operation, and, with rather blind obedience, submits to surgery, understanding little of what is expected of him, what is going to be done, or what the exact after-result is going to be. Such a patient goes to the hospital in a highly nervous frame of mind, especially dreading ether, and totally unfit mentally to cope with the post-operative discomforts. We are sure, therefore, that a few careful words of encouragement, a simple explanation of the hospital and surgical routine, an effort to instill a feeling of confidence in the patient, is a very much worthwhile thing for the surgeon to take a few extra minutes to do before the patient leaves the office. If patients ask questions, we should answer them frankly, and should never try to deceive or put the patient off with evasive answers. A certain amount of frankness establishes a feeling of great confidence in the patient, who then submits to his operation in a much calmer frame of mind than if this little bit of personal touch had been omitted.

We are all hopeful that the present day efforts to educate the public in medical matters will soon produce a more enlightened and intelligent group of patients. If we find an intelligent patient, should we not, in turn, meet him halfway at least regarding our knowledge of his disease and its surgi-

cal treatment? Only in this way, it seems to me, can we expect the full co-operation of our patient and be able also to instill into him the proper amount of confidence. This attitude also saves much embarrassment later, should the end-result not be quite satisfactory.

In order that there shall be less chance for misunderstanding regarding the preparation for operation, we have found it a very good plan to furnish our patients with a printed set of directions regarding the preparation of the bowels, the diet, the forcing of fluids, the care of the mouth and teeth, the taking of whatever medicine is indicated, and a warning to notify us at once if a head cold, tonsillitis, or cough should develop. In this way, there is less likelihood of the patient's forgetting the directions which have been given. The patient is expected to live up to these directions for three days previous to entering the hospital, and

he is questioned on admission to be sure he has done so.

Another precaution that is taken in the early fall and winter is to require at least a 24-hour stay in the hospital under observation previous to operation. This is, of course, because of the greater prevalence of respiratory infections at these times.

If I were to summarize what I have tried to convey to you in this paper, I would say that my plea was for greater attention to detail, an effort to get a more complete knowledge of our patient before operation, more painstaking physical examinations, more frequent consultations, greater care in our pre-operative preparation, perhaps less haste to operate until we are very sure that our patient is in a condition to successfully withstand the surgical ordeal our examination shows us he needs to undergo, and more thought regarding our end-results.

*LORD LISTER (1827 - 1927)

By DR. J. A. SPALDING, PORTLAND, ME.

I do not know how many of you have thought of it, but it is extremely curious that this very day of our April meeting, Tuesday, the 5th day of the month of April, 1927, should fall upon the date of the birth of Lord Lister, a hundred years ago. All the world of surgery, medicine, science, public

health and education is saying something about the remarkable career of this man, one of the world's most famous men. While the whole British Empire, and, in fact, most of the medical men of all of the nations of the globe, are this day celebrating, and at this very hour probably, the birth of

*Read at a meeting of the Portland Medical Society and the Portland Dental Society, April 5, 1927, by Dr. James A. Spalding.

Joseph, Lord Lister, it is a good idea for us in Portland to add a few words in honor of his memory.

Sometimes, after due thought, it would seem as if there never was a man so famous as Lister in the history of surgery. Some operators may have exceeded him in hand-craft, skill and achievements which made of surgery a sort of fine art, and some in medicine and accomplishment in the prevention and cure of diseases; but to-day, it seems to us that no one ever did so much for the revolutionary advances in antiseptic surgery as Lister. Without diminishing the honor of other men and discoveries, including such names as Jenner, Walter Reid, Laennec, Pasteur and the men who discovered the X-rays (nobody knows exactly who did discover these rays, for so many contributed to them), we can say that Lister accomplished wonders for surgical operations and made them antiseptically safe. He reduced surgical mortality to a phenomenal degree. He performed this wonder for human life in spite of the opposition of many of his colleagues, and of others who did not live so near to him, and those who even lived in foreign lands; but he conquered all and remained above the ordinary level, supreme and strong and totally free from egotism.

Personally, I was always very much interested from the beginning of the publication of the discoveries made by Lister. As a mere thoughtless medical student, I read all of his papers on improvements in surgery, and on carbolic acid, and of animal sutures as far

back as 1868, when I was in my two last years at the Harvard Medical School. I picked up here and there, from Edinburgh and London, various papers of Lister's, spoke with the surgeons of the Massachusetts General and the Boston City Hospitals a few words here and there concerning this topic—such as might come from a diffident medical student to his professors and teachers, when he wants to talk with them freely, but is a bit afraid. Somehow or other I obtained, occasionally, a friendly ear, and we wondered if carbolic acid and its method of use would ever be a success as prophesied by Lister.

I took, as you might say, carbolic acid so much to heart during my last year at the Medical School that when I was to graduate in June, 1870—fifty-seven years ago—I had the audacity, as you may again think, to beg, borrow or steal from Lister's early papers, printed in England, nearly every word of my graduating thesis. The title of it was "On the Surgical Use of Carbolic Acid," as it says to this day on my thesis and on my diploma in Latin, "*De Usu Chirurgico Acidi Carbolici.*"

Whether the examiners at the Medical School discovered my deceit or not, I never knew. Perhaps this was so common a trick on the part of students that the teachers did not pay much attention to the origin of my own thesis. All that I do know is that at the foot of the last page some professor wrote, "This is pretty good work."

Directly after graduating, I went abroad, by the advice of Oliver Wendell

Holmes, who told me that, as I was deaf, I would not stand much chance of earning a living in medicine or surgery, and that I had better specialize in the diseases of the eye and ear, already then coming to the front as being worthy of study by themselves. So, on his advice, I spent a long time in London, and not only attended to the study of my specialty, but put in some extra hours in the general hospitals in London, where Listerism was being carried on despite a good deal of opposition still.

While in London I made the acquaintance of a young fellow who told me of his adventures as "dresser" for Lister in his surgical work. A "dresser," as you may know, is more or less like one of our internes; and if he is intelligent, as most of them are when chosen by examination for fitness, why he can learn a great deal from the surgeon by standing at his right hand as he performs the operations, and later on follows the patients to their bed-sides until end-results are obtained. This young man told me of his genial adventures with Lister, who never lost his temper in spite of the outspoken opposition of some of his brothers in surgery, and whose methods led to such wonderful end-results from his operations that his system was soon known as Listerism, and was embraced ultimately by all of the surgeons of England, and, in fact, of the entire surgical world. Lister, he said, was, as a surgeon, careful, able and very painstaking, never rapid nor brilliant.

Leaving London in 1872, I spoke of

these advances to the surgeons whom I happened to meet in Vienna.

The next instance regarding my adventures with Lister refers to the use of carbolic acid spray at the Maine General Hospital somewhere about 1880. In those early days of the spray with carbolic acid, the operating room was filled with an indescribably fine spray, which not only saturated the air of the room and covered instruments and spectators, but it also ran all over, in minute oily-looking drops, the bedding of the patient: and so, too, it would collect on the surgeon's hair—for they didn't wear caps in those days—and it also collected on their moustaches and beards (if they wore any), so that I was always reminded of the words in the Bible of the precious oil which ran down over the beard of Aaron, as you can read for yourself if you know where to find the text.

Now it happened, after a while, that a disagreeable conflict in regard to the use of the carbolic acid spray arose between two of the leading surgeons of the hospital. One of them was a devoted admirer of everything that Lister said and did, including the spray; and the other had nothing against Lister or the carbolic spray, for all that he cared, if they only would not use that "infernal and detestable and foul smelling spray" while he was around. One word led to another, and in a short time a bitter dialogue burst out in the operating room, and the man who hated the spray vowed, in the presence of spectators, that he would never speak to the other surgeon again, so long as

he used that infernal spray. The other surgeon, who thought the spray indispensable, told his former surgeon friend to go where he pleased; and to the best of my knowledge and belief those two men never spoke to one another all their lives, and that was a period of over twenty years and more.

A good many doctors act in this way very foolishly, but in this particular instance the rupture became very amusing to the lookers on, for both of these men belonged to the Medical Society, which happened to meet at the houses of various physicians. When one of the two would enter where he was to be entertained for the evening, he would hang around in the waiting room and listen for the voice of his bitter antagonist in the parlor. If he heard this voice, and only one other answering, he would wait until a fourth member arrived, when he would enter and greet the host alongside of the newcomer. In this way, a face to face meeting with his bitter opponent was avoided. Those who knew the story used to smile behind their backs at these efforts of two physicians to get out of the sight of the other man, and yet not let either of them see that the meeting, such as it was, was deliberately avoided and so smoothed over.

After this famous quarrel in Portland had lasted some time and bade fair to continue, the spray gradually disappeared; but Listerism finally triumphed in surgery, and has, with small modifications, remained supreme to this day.

Now it happened about 1900—the exact year I have forgotten just now—

that the British Medical Society held a meeting overseas in Canada. There, as invited guests, my wife and I had the great pleasure of talking with Lord Lister in the palatial mansion of Lord Mount Royal. We found Lord Lister a most affable and genial character, simply dressed in black. He listened kindly to our talk about the meeting and its successful papers and the friends whom we had met from London, including Mr. Edward Nettleship, the well-known oculist, and others.

Lord Lister laughed most heartily when I told him of my audacity, when I graduated from Harvard Medical School in 1870, in copying some of his early essays on the use of carbolic acid in surgery and handing it in as my graduating thesis, which I was supposed to defend and did defend whenever I was asked about it by one professor or another. After he had finished laughing at my story, and his face had passed over into a genial smile, he said to us: "Well, I think it was hardly so bad as you are trying to make it out to be against yourself, and I have no doubt that you added something that I had forgotten. At all events, I am very glad indeed to meet in you my earliest convert in America to the now world-known carbolic acid and catgut sutures, although their numerous uses are gradually passing over into different forms of treatment for the same surgical afflictions."

So you can see how a thread of Listerism, as it were, has passed through my entire life in the practice of medicine and surgery and my specialties.

For this reason, I am glad to be able to say these few words to you this evening.

And now, fellow members of the Portland Medical Society and our guests of the evening, not wishing to weary you with too much talk about the famous man whose centennial is recalled to-day, I want to remind you once more that, as we are meeting here united, this very day and hour of the 5th day of April, 1927, the King of England, his Parliament, his Lords, Peers

and Commons, the surgeons and physicians of Great Britain and the British Colonies, and, in fact, of almost every nation in the world, are celebrating the centennial birthday of this extraordinary genius. Let us think, then, of Joseph, Lord Lister; of the great things which he accomplished, and of the untiring efforts he put forth. And be sure to remember always, that it is the men of one idea who generally gain their point and attain forever a seat in the Hall of Fame.

NECROLOGY

Hanford Crafts Pattengill, Fairfield Sanatorium, 1877-1927

We regret to announce the too early death of a capable sojourner amongst us in the person of the late Dr. Pattengill. Born at Mt. Vision, N. Y., December 31, 1877, he died at the Fairfield Sanatorium, March 14 last. He was graduated from the Baltimore Medical College, practiced at Omata and Jamaica, N. Y., and during that period he met with a fractured rib from the kick of a horse. Empyema and pulmonary tuberculosis ensued. Two years later, after a cured infection of the wrist, he was an official at Bonnie Burn, in New Jersey, and later at the Central Maine Sanatorium, for the rest of his life.

As a friend, who knew him, said to me: "He was a man of commanding appearance, rare intellect and culture, and above all, courageous. He was a physician in the highest sense of the

word, and in his departure Maine has suffered a severe loss."

Nathaniel Mason Marshall, South Windham and Portland, 1857-1926

Born in Hebron, May 26, 1857, the son of Isaac Whittemore and Lydia Hutchinson Marshall. He was educated at Hebron Academy, attended medical lectures at Dartmouth, and obtained his medical degree at Bowdoin in 1879. He opened an office in South Windham and married Miss Eva E. Blake, of New Gloucester, who survives him.

Dr. Marshall was chosen President-elect of our Association in June, 1926, was very much delighted at the unexpected honor, and during his short term of service had evidenced his intention to prove himself a capable officer, whenever opportunity served.

Dr. Marshall died November 14, 1926, following a short illness.

COUNTY NEWS AND NOTES

Kennebec County Medical Association

The quarterly meeting of the Kennebec County Medical Association was held at the General Hospital, Augusta, Tuesday afternoon and evening, June 7, 1927.

The meeting was called to order by the president, Dr. Frederick T. Hill, and the clinical program was as follows: "Sarcoma of the Tonsil—Operation and Cure," Dr. F. T. Hill; (a) "An Eye Case," (b) "An Ear Case," Dr. E. H. Jackson; "Chronic Myelogenous Leukemia," Dr. H. W. Hall; "Rickets," Dr. W. B. Sanborn; "Case," Dr. W. J. O'Connor; "'Freak' Obstetrical then Surgical," Dr. R. D. Simons.

At the business meeting, which followed immediately after the dinner, Dr. George M. Gregoire, of Waterville, was elected to membership.

Applications for membership from Dr. Samuel C. Cates, of East Vassalboro, Dr. John Christensen, of the National Home, and Dr. V. T. Lathbury, of Augusta, were received and referred to the Board of Censors.

The resignation of Dr. Matilda Maerz Belz, of Frankenmuth, Mich., was received and accepted.

Resolutions on the death of Dr. O. C. S. Davies, of Augusta, were read and adopted. It was voted that a copy be spread upon our records and a copy be sent to the members of the immediate family.

It was voted to hold two special meetings in the fall, one at the sanitarium in Fairfield, where tubercular

cases will be discussed, and the other at the Augusta State Hospital, where nervous and mental cases will be considered.

It was also voted to invite the Maine Medical Association to hold its annual meeting at the Belgrade Lakes Hotel, in June, 1928.

It was voted that a field day be held later in the season, and a committee, consisting of Dr. Frederick T. Hill, Dr. George Campbell and Dr. Warren Sanborn, was appointed to select the time and place. This committee met immediately after the medical meeting and decided to hold the field day at the Belgrade Lakes Hotel sometime during the month of July, when a scientific program will be heard, luncheon served, and golf and other sports enjoyed.

The meeting closed with the scientific session. The program was as follows: "Safeguards for the Patient," Dr. E. H. Risley, discussion opened by Dr. G. R. Campbell; "Safeguards for the Physician," Dr. George A. Coombs, discussion opened by Dr. Ralph L. Reynolds; "Safeguards for the Hospital," Dr. O. W. Turner, discussion opened by Dr. E. W. Boyer. These papers were of unusual interest, were well discussed, and greatly enjoyed by those present.

This was one of the largest meetings that the association has held for years, forty-four members being present. Members and guests attending were: Drs. R. L. McKay, L. L. Mann, E. H. Jackson, W. H. Harris, M. A. Priest, S. H.

Kagan, O. W. Turner, G. R. Campbell, C. W. Dyer, G. H. Coombs, W. J. O'Connor, M. Marquardt, C. F. Kendall, R. H. Stubbs, H. W. Hall, W. B. Sanborn, F. R. Carter, G. H. Coombs, Augusta; P. S. Merrill, C. G. Rancourt, V. C. Totman, H. W. Abbott, E. H. Risley, B. P. Hurd, E. W. Boyer, F. T. Hill, J. P. Goodrich, A. H. McQuillan, H. F. Hill, R. L. Reynolds, of Waterville; J. W. Laughlin, J. W. Christen-

sen, Togus; E. P. Williams, Oakland; W. N. Price, A. B. Libby, R. D. Simons, Gardiner; C. H. Newcomb, Clinton; L. D. Herring, F. H. Badger, Winthrop; H. E. Doughty, Readfield; H. E. Williams, Mount Vernon; W. W. Hendee, Seward Cates, Vassalboro.

Respectfully submitted,

FREDERICK R. CARTER, M. D.,

Secretary.

NOTE

Commonwealth Fund

Farmington, Maine, a town of 3,200 inhabitants, in the Rangeley Lake region, will receive approximately \$140,000 from the Commonwealth Fund toward the construction of a modern hospital, according to an announcement made to-day at the headquarters of the Fund, 1 East 57th Street. This is the third of a series of rural hospitals planned under a co-operative program which contemplates the building of two such institutions annually in selected communities throughout the United States, with the object of improving health and the conditions of medical practice in country districts. As with the other communities accepting the terms of these grants, Farmington will contribute a third of the cost and will assume the operating expenses, while the Commonwealth Fund will donate the remainder of the capital cost and will provide plans and specifications for a fifty-bed hospital meeting the highest modern standards of construction and equipment.

Fourteen communities in eight states made formal application for the third

institution offered under the Fund's rural hospital program, and Farmington was chosen after thorough study of the local needs and resources of these towns. One of these places will probably receive the second of this year's hospital awards, to be announced in the near future. Two southern communities, Farmville, Virginia, and Glasgow, Kentucky, were picked for the hospitals to be built under last year's appropriation, and accordingly northern and mid-western States were given preference in the selection of the third site.

Like the two hospitals already under construction, the Farmington institution will serve a wide range of surrounding territory. The village lies in a valley extending for about seventy miles southward from the Canadian border and including Franklin County and parts of other counties in west central Maine. This region is shut off to the east and west by ranges of hills, making it difficult to transport patients over considerable distances to cities which have adequate hospital facilities.

Another factor which makes this sec-

tion of rural New England representative of the type of community that the Fund wishes to aid through its hospital program is that active public health work is already being carried on under the auspices of the State and local Boards of Health and of the Maine Public Health Association, one of whose public health nurses has her headquarters at Farmington. The enthusiastic endorsement of the hospital project by local physicians and surgeons, twenty of whom signed the application, gives promise for the development of a competent professional staff. Under these conditions a fifty-bed hospital, serving the population of 30,000 in Farmington and the adjacent area in the ratio of one bed for every six hundred inhabitants, will, it is thought, further demonstrate the value of such institutions in improving public health, medical and nursing services in country districts.

According to the last annual report of the Commonwealth Fund, the Board of Directors, in approving the project for building rural hospitals, had in mind "the obvious and widespread lack of accessible hospital facilities in general character in rural districts, and the accumulating evidence of the disadvantage of rural communities as compared with urban in the matter of health, as shown in many instances both by their higher morbidity and mortality rates, and the higher proportion of defects among rural school children. These hospitals, strategically located in various sections of the country, it is believed, will in time influence neighboring communities to establish similar facilities out of their own resources, and will help to break down the tradition that the hospital is purely a rehabilitative institution."

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*REMARKS ON THE PRACTICAL TREATMENT OF DIABETES AND HYPERTENSION

By E. R. BLAISDELL, M. D., Portland, Me.

I shall speak briefly on the treatment of diabetes and hypertension.

DIABETES.

The prophylactic treatment of diabetes is the relief of functional over strain in acute infections by proper diet, the removal of focal infections and the prevention of obesity.

Previous to 1914, the treatment of diabetes was that of carbohydrate restriction only. This controlled the mild cases for a time, the moderate cases became severe, and the severe cases went into coma and died. In 1914, Dr. F. M. Allen brought out something new in treatment, namely, that the diseased islands of Langerhan's are not only affected by carbohydrates, but are also affected by total calories and body weight, and that the reduction of body weight markedly increases tolerance. This laid the foundation for the modern dietetic management of diabetes.

Allen's statistics, with those of Joslin, proved that under-nutrition conserved life more successfully than any other form of treatment. Joslin's reports show that after 1914 the average life of all diabetics under his care was nearly doubled, and many of the severe cases were kept alive to receive the benefits of Banting's insulin discovery in 1922.

Since 1922, the treatment of diabetes has been by diet and insulin. During the last year or more, research workers, in collaboration with clinicians, have attempted to produce a preparation which would do away with the hypodermic administration of insulin. The results have not been entirely satisfactory and insulin still plays an important part in the treatment of the majority of the severe cases of diabetes. In May of this year, Dr. F. M. Allen read a paper at the meeting of the American Medical Association, outlining the use of myrtillin, his new dis-

*Read at the annual meeting of the Maine Medical Society at Portland, Me., June 13, 1927.

covery, in the treatment of diabetes. At about this time, Dr. Wagner, of Breslau, reported good results from the use of a product which he calls synthalin. It reduces blood sugar, but in many cases produces a severe gastroenteritis. Both of these preparations may be given by mouth, and they will probably revise, to a certain extent, the present day treatment. Although I have seen good results from the use of myrtillin in Allen's clinic, neither myrtillin nor synthalin are obtainable as yet, and I shall confine myself, in the following remarks, to the use of diet and insulin in the treatment of diabetes.

1. Although the discovery of insulin has made possible the control of practically all diabetics, it has not diminished the need of scientific dietary management. Proper diet is even more important than before. To properly use insulin, the patient must be on a weighed diet. To administer insulin, except in extreme emergency, to a diabetic who is not on an accurately weighed diet shows as little judgment as would the treatment of peptic ulcer, medically, without proper dietetic advice. Leading clinicians have brought out the point that scales are probably of more importance than the discovery of insulin, because a large number of diabetics do not need insulin, but they all need diet, and those who require insulin must have an accurate diet.

2. The diets of Allen and Joslin seem to me to be the most practical of all. They use a well-balanced diet and depend largely upon the limitation of total calories to increase tolerance.

Although very different methods are used by these clinicians in computing their diets, their total maintenance diets are practically the same. A proper maintenance diet may be said to be one on which the patient holds the desired weight.

3. Every diabetic, whose disease is severe enough to suggest the use of insulin, should be in the hospital until his diet—insulin balance is well established. In fact, I believe that every diabetic would be better off if he would first spend a few days in the hospital. The average practitioner does not have time to teach the patient diet computing, diet weighing, insulin administration, emergency treatment, etc. This is really the work of the nurse. The physician's part should be that of an adviser, and, in his daily rounds, he can easily give directions as to diet and insulin changes. If the patient stays a short time in the hospital, he will be more likely to understand the necessity of accurate treatment, and break of diet would be less frequent. If the case proves to be a mild one, he may be able to discontinue the use of scales after a time, but he will have a general idea of the value of the different foods in terms of grams of protein, fat and carbohydrate. I have always refused to give patients advice in regard to insulin treatment unless they would first become hospital patients. If they refuse, I am glad to let the other fellow treat them. The majority of them will never do well and it would only mean trouble in the end.

4. A large percentage of the cases

of uncomplicated diabetes do not require insulin. If a patient can take a well-balanced diet, that is sufficiently rich in calories to maintain a normal body weight, without causing glycosuria or hyperglycemia, he does not need insulin. The administration of insulin, in itself, does not necessarily decrease the diabetic's dangers. If we are to prevent complications and downward progress, we must keep the urine sugar free and the blood sugar at a nearly normal level. The removal of focal infections should not be neglected. It is impossible to treat diabetics in general by any one set of rules. Some cases are mild and some are severe. Every case is a case in itself and must be treated accordingly, yet if one takes into consideration the fact that the reduction of total calories and body weight are important factors in increasing tolerance, there will be a smaller number of severe cases of diabetes and the treatment will be much more simple.

5. The uncomplicated obese adult rarely needs insulin. Reduction of weight with a moderately low calory diet is usually sufficient. The uncomplicated under-weight adult usually requires insulin. It is usually necessary to start with a fairly ample diet, giving as much insulin as necessary, but no attempt should be made to increase the weight above normal.

6. In treating children, we should not depend upon under-nutrition. On the other hand, they should not be fattened with huge doses of insulin, as this predisposes to infections and

coma. They should be made to grow and given a normal weight for their age and height. They should be on a well-balanced diet with sufficient insulin to keep them sugar free. Children are especially susceptible to acidosis and frequently require a larger proportion of carbohydrate than the adult.

7. The diabetic with complications. The treatment of this class of patients presents one of the most difficult problems in medicine. All active diabetics with severe infections require insulin.

(a) General infections. 1. Influenza, pneumonia, typhoid, etc. Give enough calories to keep up the strength of the patient, but do not overfeed. A fair proportion of carbohydrates should be given, as these patients are very susceptible to acidosis. Sufficient insulin should be administered to keep them sugar free and the blood sugar normal. 2. Tuberculosis. Give a well-balanced high calory diet, with enough insulin to keep them sugar free and the blood sugar normal.

(b) Local infections and gangrene. In case of abscesses and carbuncles give a low calory diet, unless the patient is weak and emaciated. Give enough insulin to maintain a sugar-free urine and a normal blood sugar. The local treatment should be left to the surgeon. In case of gangrene, do not treat too long before the operation, as delay may cost the patient his life. The choice of operation should be left to the surgeon.

(c) Diabetic coma. First make a correct diagnosis. If the urine contains heavy sugar and acetone, and if the blood plasma acetone is heavy, give 60

to 100 units of insulin ($\frac{1}{2}$ intravenously). Give with this 40 to 60 grams of carbohydrate. Give an enema, force fluids (if not able to take by mouth, give rectally and subpectorally), and keep the patient warm. Give heart stimulation if necessary. Repeat insulin and carbohydrate in two hours. The future management of the case will depend upon the urine and blood examination. The urine should be examined every two hours until the patient is out of coma, and after this, urine examinations should be made previous to each dose of insulin. Protein and fat should be added gradually and cautiously. In general, this is the method taught me at the Physiatric Institute and the one that I have followed with good results.

8. The surgical diabetic. An attempt to even discuss general surgery in diabetes would fill an average-sized paper in itself. Fairly recent publications of Jones and Root, Judd and Wilder, and Duncan and Frost have covered this phase of diabetic treatment in detail. My own experience has been that diets low in total calories and high in carbohydrates previous to the operation and moderate restriction of the total calories after the operation are most effective. Enough insulin should be given to keep the urine sugar free and the blood sugar as nearly normal as possible.

9. Insulin administration. In regard to insulin administration in the average diabetic, it may be said that one or two doses daily are frequently sufficient in the adult, while two or

three doses daily are usually necessary in the child. As a matter of convenience, it is customary to give insulin one-half hour before meals. This is not absolutely necessary, and in severe cases where high morning blood sugar persists, in spite of three large doses just before meals, "the early and late administration of Allen" work well. For this type of case he gives the first dose of the day one to two hours before breakfast and the last dose one to two hours after the evening meal. This does away with the necessity of a fourth dose at midnight and keeps the blood sugar at a more uniform level. The insulin patient should be watched for reactions. They are more apt to occur in the early part of the treatment, before the patient is well balanced, and in complicated cases who are recovering from infections. As the latter subside, less insulin is necessary, and unless the dosage is decreased severe reactions will occur. Even in uncomplicated cases, who are apparently well balanced, severe reactions may occur, due to either a sudden regain of tolerance or severe strenuous exercise. Reactions appear when the blood sugar falls below a certain level. This level is not always the same in all patients. Some patients are particularly susceptible to insulin and are very difficult to regulate. The symptoms of over insulin dosage are usually hunger, faintness, muscle twitching, sweating, double vision, and even convulsions, coma and death may occur in severe cases in whom reserve glycogen is absent, if sufficient carbohydrates are not given.

Carbohydrates may be administered in the form of orange juice, Karo syrup, etc., and, if the patient is unable to swallow, it may be necessary to give glucose intravenously. In the latter instance, if a good supply of reserve glycogen is present, ten minims of adrenalin hyperdermically will usually arouse the patient enough so that he will be able to swallow.

In conclusion. Diabetes is a metabolic disease and accurate diet is the basis of proper treatment, and unless the patient gets an accurate diet, downward progress and complications cannot be prevented. Normal blood sugars and sugar-free urines prevent progressiveness. If this cannot be accomplished by a well-balanced diet alone, sufficiently rich in calories to keep the patient feeling well and strong, insulin is indicated. The administration of the latter cannot atone for carelessness and inaccuracy in dietetic management.

HYPERTENSION.

Arterial hypertension, although frequently associated with nephritis, is very often found to be apparently a distinct disease in itself. Therefore, it is customary to describe hypertension in two forms, the pure essential hypertensive form and that form associated with nephritis.

In the pure essential hypertensive form, the urinary examination is practically negative. Here, increased blood pressure is one of the most common signs. A frequent reading is 240/110. The heart is always enlarged if there has been increased pressure for any length of time. Headaches, dizziness, numbness in the extremities and cough

are all common symptoms. Spasmodic attacks of dimness of vision, due to spasm of the retinal vessels or permanent loss of sight may occur following rupture of the vessels and degeneration of the retinae. The patient may look the picture of health and complain of no symptoms, the high tension having been discovered on a routine physical examination. It has been my experience that nearly all of these patients have symptoms, but some give them no thought and are content to attribute them to indigestion, liver trouble, etc. It has been frequently stated that the disease may remain stationary for many years without any treatment. The more of these cases that I have occasion to examine, the more thoroughly I am convinced that no statement could be more untrue. I personally believe that every case of hypertension untreated gradually develops vascular changes as time goes on, although these changes are more rapid in some than in others. It is not uncommon for an ophthalmologist to refer a patient to me with hypertensive retinae, yet by simple inquiry the patient gives no history of high blood pressure symptoms. The essential hypertensive patient, untreated, will eventually become a victim to either myocardial failure, cerebral apoplexy or chronic contracted sclerotic kidneys, termed by Volhard as nephro-sclerosis.

In that form of hypertension associated with nephritis, we get distinct kidney changes, resulting in albuminuria, casts and frequently red blood cells. It may present itself as an acute glomerulo-nephritis, following an acute infection, resulting in very high blood nitrogen and frequently uremia, or it may be a chronic progressive glomerulo-nephritis extending over a long period of time. Chronic nephritis may exist

in some people several years before the excretory power of the kidneys are severely interfered with, and, in the meantime, the patient may enjoy apparently good health. On the other hand, nephro-sclerosis may develop quite early in the disease and the kidneys lose their power of concentration, the blood nitrogen becomes dangerously high and death may ensue from uremia. A large percentage of patients with chronic nephritis never live long enough to die of cessation of kidney function, but die of cardiac complications, cerebral apoplexy and broncho-pneumonia.

The prophylactic treatment of hypertension is the prevention of acute infections, in so far as possible, the relief of functional overstrain by proper diet during and following these infections, and the removal of focal infections. This is especially necessary in those patients who are predisposed to renal-vascular disease through heredity.

From a therapeutic standpoint, there is no sharp distinction between cases of hypertension with and without nephritis. Many of the earlier cases of nephritis with hypertension respond well to proper treatment, while some of the cases of hypertension of the essential type are severe and quite refractory to treatment. The presence of nitrogen retention does, however, make any case of hypertension more complicated. It is for this reason that I have considered, first, the treatment of that type of hypertension not associated with nitrogen retention, and, second, the treatment of that type of hypertension associated with nitrogen retention.

1. The treatment of hypertension not associated with nitrogen retention. All foci of infection should be removed. Drugs have been prescribed for years for hypertension, chiefly among these

are the iodides and the nitrites. Granting that the iodides may have some effect in decreasing the viscosity of the blood, there is evidence to prove that they are interchangeable with the chlorides and frequently do more harm than good. The nitrites are useful in emergencies, but their prolonged use in the average case is to be discouraged. Bleeding is of benefit in emergencies. In extreme cases, it may be used beneficially before dieting has had time to take effect. The same may be said of complete bed rest, but who wants to spend any more time than necessary in bed? It is needless to say that excesses of all kinds should be avoided.

Dieting is, I believe, the only efficient method that we possess at the present time for the control of hypertension. Low protein diets have been prescribed for years. This idea has been sufficiently exploded by leading clinicians. It may be wise to restrict protein to 80 grams daily as a precautionary measure, but any further restriction, in the absence of nitrogen retention, is useless. The question of salt restriction has received much attention during the last few years. In 1921, Dr. F. M. Allen advocated a salt-free diet and published a series of cases to show its beneficial results. The majority of clinicians, at that time, refused to accept the idea that salt was in any way related to high blood pressure. The majority of these same physicians are now advocating salt-poor diets, but refuse to admit that any further restriction of salt is beneficial.

Volhard's explanation of hypertension has been quite generally accepted, namely, that the hypertension is caused by a spasm of diseased arterioles, especially in the kidney. The salt-free diet treatment is, I believe, based on

the following theory, that an obstruction of the blood flow is caused by sodium chloride, which causes the endothelium to swell and the small blood vessels to contract. This question of spasm and swelling is closely related to osmosis, of which sodium chloride is the chief regulator. Remove the salt and the spasms decrease.

A salt-free diet means that no salt is to be added either in cooking or at the table, and the foods themselves should be chosen from those lowest in salt content. Soda bicarbonate, baking powder, cream of tartar, all effervescing drinks and milk should also be excluded. After a blood pressure has been lowered by a salt-free diet, I have seen it elevated again by dosing with soda. An occasional examination of the 24-hour urine chloride is essential, and by this means a break in diet can be detected. The ideal salt-free diet is one in which the 24-hour urine chloride remains around .5 gram.

In regard to salt-free diets versus salt-poor diets, several physicians have, with a few cases, attempted to prove that the latter were equally as good. This is an impossibility with a small number of patients, because the milder cases may show some improvement to only moderate restriction of salt, while the severer cases may be only partially controlled by the strictest salt privation. Three of the milder cases in my series have been able to return to a salt-poor diet, after an initial three months' treatment with salt-free diet, without a return of hypertension. The remaining number always show an increase of pressure after a mild break in diet. A week or more may elapse, after dietary rules are broken, before much increase in pressure is noticed.

It is in this form of hypertension that

much relief from symptoms may be obtained with salt-free diet. The majority of patients notice a great improvement within a few days. Shortness of breath decreases; they feel much lighter, due to loss of edema—most of which is usually invisible—dizziness disappears and they have more "pep." There is also considerable hope of relief in those cases having decrease of vision, due to spasm and edema of the retinal vessels, providing too extensive changes have not already taken place. The careful ophthalmologist can many times pick up early cases of hypertension, and if proper treatment is instituted the morbidity and mortality from renal vascular disease can be decreased.

2. That form of hypertension associated with nitrogen retention. Obviously, we are here dealing with a more severe form of hypertension. Kidney function has decreased to such an extent that the waste products of protein metabolism are not properly excreted. The case may be a mild one and moderate restriction of protein, with a salt-free diet, may decrease the blood pressure and lower the blood nitrogen to normal. On the other hand, it may be so severe that 10 to 15 grams of protein daily may only slightly decrease the blood nitrogen. If the blood nitrogen is only slightly increased, a salt-free diet containing 60 grams of protein may control the condition. In the moderately severe case, a salt-free diet containing from 40 to 50 grams of protein is indicated. In the more severe form of chronic contracted kidney, 1 to 2 grams of salt may be added to the salt-free diet, for the purpose of diluting the blood nitrogen. In these severe cases, it is well to restrict the protein to from 10 to 15 grams daily for a time. This cannot be kept up for any great length

of time, as it would cause too large a breakdown of body protein, and it is more practical to allow from 20 to 30 grams daily. This latter amount, combined with a high caloric diet, supplied by carbo-hydrate and fat, will keep the patient in good condition as far as his diet is concerned. Caution should be used in suddenly restricting all salt in cases with a high blood nitrogen, as this may precipitate uremia. It is wiser to use a low protein diet for a few days and gradually restrict the salt. If the 24-hour urine falls below 1,000 c.c., some increase of water intake may be advisable.

The great majority of cases of high blood pressure and nephritis do not require a weighed diet. It is necessary to weigh the diet in the severe cases, where the blood nitrogen is dangerously high, as the difference of a few grams of protein daily may make considerable difference in the patient's condition.

In a recent article,* I published my results with salt-free diet, in the treatment of thirty-five cases of arterial hypertension. Since then I have been able to add twenty-four more cases to this list, and the results have been the same. I did not include those cases who habitually broke diet or those who abandoned treatment before any definite opinion could be formed as to the results.

In conclusion, I will say:

1. The blood pressure was reduced to normal in only a small number of cases, but there was a marked lowering

in both systolic and diastolic pressure in nearly every case.

2. In those cases with marked increase of blood nitrogen, a low protein diet was prescribed and salt was withdrawn gradually. The results in this class of cases were not so good.

3. There was a decided relief from symptoms in all cases.

4. With few exceptions, the results obtained were independent of time. The blood pressure was reduced within the first month and remained stationary, as long as the patient remained faithful to the diet.

5. None of the patients were put to bed in order to reduce the blood pressure. As a matter of fact, the majority of the patients were able to carry on their work with greater ease, after being on the diet. A decrease in activity was advised in those cases with advanced heart complications, but little heed was paid to this advice.

6. The 24-hour urine chloride determinations were found to be indispensable in the majority of cases. This was a great help in detecting a break in diet. In cases under observation over one month, an increase of one gram in the 24-hour urine chloride was almost invariably accompanied, within a short time, by an increase in blood pressure.

7. The results obtained in the treatment of arterial hypertension, by salt-free diets, have been, in my experience, far superior to those obtained by salt-poor diets, rest and drug therapy.

* *Boston Medical and Surgical Journal*, May 19, 1927.

*RECENT ADVANCES IN THE TREATMENT OF METABOLIC DISORDERS.

By DR. F. M. ALLEN, Morristown, New Jersey.

Mr. President, and Ladies and Gentlemen of the Maine Society :

It was somewhat of a new experience to find a state medical society devoting its session chiefly to metabolic disorders, and it was gratifying to find up here in Maine such a well-organized metabolic clinic, with records and with results as good as can be found in any of the principal centers of such treatment. It was also interesting to find collaborative work in progress on metabolic disorders in conjunction, for example, with ophthalmic disorders, and the opportunity for the clinician and the ophthalmologist to collaborate in the diagnosis and the treatment. The results of the disorders from those two standpoints will, I am sure, yield a research which will add important knowledge to this subject.

In spite of all those things, the fact remains that metabolism to the average practitioner is more or less of a mystery. It is a hard thing for him to grasp and get hold of, and it was my idea in coming here to-day to present, if possible, a little résumé of this subject in a simple and practical fashion, because it is a simple and easy subject, and because it is a thing you must meet with in your practice and must either treat successfully yourself or send to somebody else to be treated.

Of course the diseases to be discussed

to-day are but a small group of metabolic disorders. A multitude of diseases, for example of the thyroid and adrenals, fall outside of this discussion altogether. I want to speak particularly of a certain group of metabolic disorders. One outstanding characteristic of the members of this group is that they are apparently caused in the first place by infection or intoxication. This infection or intoxication injures certain vital organs. The original cause passes off, but the damage of the organs remains permanent throughout life. Then the damaged organs are further broken down by overstrain of their function, and, as a result of that overstrain, deterioration occurs, and the picture seen clinically is that of a progressive fatal disease. Therefore all of these disorders have been classed in textbooks and in the minds of physicians heretofore as inherently and inevitably fatal diseases.

I am glad to have begun, more or less accidentally, to work in this particular field of medicine for several reasons. In the first place, it represents the greatest cause of human mortality to-day: also it represents some of the worst forms of disability. It represents a very large share of the total physical incapacity of people in adult life who ought to be at their best usefulness. It represents a very large

*Stenographic notes of remarks before the June meeting of the Maine Medical Association.

share of the paralysis of the world, because apoplexy alone gives rise to a great part of the existing cases of paralysis. I think—and if I am wrong the ophthalmic specialists here can correct me—that this group of disorders probably are responsible for the greatest number of cases of blindness coming on in adult life. All these things are subjects worth working on to clear up, and the best feature of all is that this field of research has advanced in recent years more rapidly, more markedly, than any other field of medicine. I went into it because the foundations seemed to have been laid in physiology and in chemistry, and upon those foundations new treatments have been built with surprising rapidity, so that within a few years the entire viewpoint and the entire prognosis have been transformed.

A fundamental step in the treatment of these conditions, according to the classification laid down, must naturally be to remove any existing focus of infection, to prevent further damage from that cause. In many cases these foci can be found. I think perhaps in the majority of cases the foci will no longer be found. The origin, very often, was in some acute infectious disease, like scarlet fever, typhoid, or anything else that may strike the patient. There is no persistent infection to clear up, but the residual damage is the thing to be considered. Therefore the remaining steps of treatment, which occupy the most of our attention, consist of sparing or assisting the function of the damaged organs. This means to

plan a diet which will place the least possible strain on these organs, and, when possible, to use specific means for re-enforcing the function of these organs. These facts will be illustrated in taking up the individual members of this group.

We may begin with diabetes, and much of this discussion can be spared because of the clinic which was held this morning. Diabetes is the result of pancreatic damage, damage of the islands of Langerhans, sometimes by chronic infections, more often by acute infections. The basis of treatment is diet. In various phases of the diabetic diet you will encounter most of the principles of all dieting, and to treat it you must understand that all foods contain certain principles divisible into carbohydrate, protein and fat, which together make up the total calories. Also salts, and in some diseases vitamins or other accessory food substances, must be considered. These few things comprise all the essentials of diet. In diabetes, we are interested primarily in carbohydrate, protein and fat, also in the total calories and the body weight resulting therefrom. In giving a diabetic diet, every physician who treats any patient should understand weighing the diet. You can successfully treat most cases of diabetes without weighing the diet, because the majority of cases are mild, but you cannot intelligently prescribe a diet for any diabetic unless you understand the principles of weighing diet. It is extremely simple, and you should make a decision whether you intend to treat

these cases or not. If you do, it is not too complex to consult food tables showing the percentage values of protein, carbohydrate, etc., in different foods. It is not too complex to remember that one gram of protein represents four calories, that one gram of carbohydrate represents four calories, and that one gram of fat represents nine calories, and from these different food-stuffs you should be able to build up a diet of a certain number of calories. Such diets are usually phrased as representing so many grams of protein, so many grams of carbohydrate and so many total calories, it being understood that the difference is made up of fat. The purpose of the diet is to supply a comfortable amount of protein and carbohydrate and enough calories to maintain a satisfactory normal or slightly sub-normal body weight.

An entire hour, or several hours, could be consumed in discussing the diabetic diet alone. The diet is very simple if you avoid unnecessary complications. It is wrong to make it too simple by trying to copy diets out of textbooks. There are no printed diets that will fit all cases. You need not go further than the above simple statements about giving the patient proper quantities of protein and carbohydrate. There have been various fads introduced, such as planning the diet according to the basal metabolic requirements, and other artificial reckonings which are entirely unnecessary. I believe it is also wrong to resort to extremes of diet, such as extremely high proportions of fat, which make

the diet less appetizing, increase the danger of breaks of diet, and conduce more strongly to acidosis if anything happens to go wrong. If you consider that the average patient will be satisfied with something like 60 to 100 grams each of protein and carbohydrate, you can give him such allowances according to his individual characteristics, and then fill up with fat to make whatever number of total calories will maintain the desired body weight. If the patient does not need to weigh out his diet, because of the mildness of the case, you, as I said in the first place, should understand the weighed diet in order that you may lay out for him a general ration that will contain approximately these quantities. If you do not know this, perhaps your diet will not be balanced, or it will contain more carbohydrate than you desire, or will be wrong in some other way.

I would repeat that merely copying diets from textbooks, or crude rules, such as "You should not eat bread and potatoes and pie," or lists of permitted and forbidden foods, get you nowhere, for the reason that the quantities are such an extremely important factor. There are patients who will eat more carbohydrate in spinach than some others will in the form of bread. You must limit the quantities according to the individual need. Furthermore, it is not true that fat is harmless. It is not true that alcohol is harmless. It is not true that anything that carries caloric value can be given without restriction. Anyone who studies his patients carefully will be able to demon-

strate for himself that the total calories are a tremendously important factor. They govern the body weight, and an important rule to remember is that the body weight and the diabetic tolerance behave like the two pans of a balance—as one goes up, the other goes down. If you fatten your patient, you diminish his tolerance. If you reduce his body weight, you increase his tolerance. For this reason a fat patient may sometimes seem to have scarcely any tolerance, but reduce his body weight to normal by under-nutrition, and you will find the case is mild and an adequate diet can then be given without difficulty.

If possible, this fundamental treatment by diet alone should be made sufficient. A few years ago it was the only method available. Since 1922 a much more powerful, positive force has become available, namely, insulin. We should avoid the use of insulin if possible, not because of its dangers, but because of its inconvenience. There are two inconveniences. One is the inconvenience of the injections themselves, which everybody recognizes; the other is the inconvenience of the weighed diet, for, although the majority of patients without insulin can avoid weighing their diets, every patient with insulin should be on a weighed diet. One reason is that if the case is severe enough to need insulin, it is severe enough to need a weighed diet and should not be treated without it. The other is that when you use insulin you are compelled to use a weighed diet or your results will be bad. You must guard in this instance not only against

too much food, but against too little food, and against variations from day to day. Your diet must be constant or else the insulin dosage cannot be constant and the results cannot be constant. You cannot risk having too high sugar some days and too low sugar some other days. The idea that insulin can obviate the need for accurate diet is entirely mistaken. The idea that, with or without insulin, excess sugar can be allowed to continue in the blood or in the urine is wrong; and it is owing to these mistakes undoubtedly that we have the situation which was mentioned this morning, namely, no decline in diabetic mortality since insulin was introduced. Despite the theoretically perfect means of treating diabetes, we have apparently no important saving of life.

With diet and with insulin the entire field of treatment could be covered except for the peculiar factor of human nature, and it is on account of that factor that work is being done now to find something to be given by mouth. I mentioned this morning the work on synthalin in Germany, which has yielded a substance somewhat like insulin, and which, to some extent, may be available as a mouth remedy, but by no means with the effects of insulin in the fullest degree, and with an added disadvantage of toxicity.

In regard to myrillin, there seems to be some evidence that it also may furnish a partial remedy for oral administration. It may give some good results and it will certainly give some failures. Though we may hope that it will prove worth while in practice, it should not be

considered as a miraculous cure. Although the main effort of therapeutic research to-day seems to be centered on a mouth remedy, there is still no chance, no prospect of a remedy which is really fool-proof—something which can be given by mouth which will be harmless and which will enable the patient to avoid regulation of diet. The point to emphasize is that any form of treatment requires accuracy in diet in conjunction with the administration of the remedy.

There are many other phases of this subject, such as the treatment of complications of all kinds, acidosis, infections, and so on. Those must be passed without notice here, and to give anything like a general survey I must pass to the larger group of cardiorenal vascular disorders. This group in itself is the leading cause of death in the world to-day. The mechanical factor has been chiefly emphasized heretofore in textbooks in the treatment of heart disease. Muscular rest naturally is important and the stimulation of the heart by digitalis and other drugs has, of course, an important place. The metabolic factor has been under-emphasized. It is important in heart disease. It is by far the preponderant factor in vascular and renal diseases.

The classification of these disorders according to types of nephritis, and, of course, types of heart disease, is covered in the textbooks, and Dr. Duncan has brought that up to date in relation to renal-vascular disorders, in his talk just before this one.

From the practical standpoint of the

physician, especially for planning treatment, you will find it simple to view these disorders as pertaining to the metabolism of either protein on the one hand or of salt and water on the other hand. The one is a retention of products of protein, that is, retention of nitrogen; the other is a retention of salt and water or an abnormal behavior of salt and water in the body. The one process leads to a chemical poisoning manifested in uremia. The other process leads to mechanical difficulties in the form of hypertension and edema especially.

Now, these two states of metabolism are sharply distinct in treatment, and these are the two factors to bear in mind at the outset of any case. The blood analysis in particular will show you whether the patient is suffering from nitrogen retention. If he is, and if that retention becomes high, he will ultimately die of uremia. If retention is occurring, there is just one remedy for it, and that is restriction of protein in the diet. By restricting the amount of nitrogen taken in, you obviously can limit the burden on the kidney function. All authors are agreed concerning this point. The degree of dietary restriction, however, is not always agreed upon. Protein allowances of 50 and 60 grams are a fair restriction in the milder cases. If the case is more severe, if the nitrogen retention fails to come down with this degree of restriction, you can reduce to 40 and to 30 grams of protein, and, if necessary, a patient can live certainly a very long time on 20 grams of protein per day.

Most kidneys can take care of that amount of nitrogen, which means that the patients can live for years and years without going into uremia, because the nitrogen does not accumulate. Nitrogen starvation diets below 20 grams of protein can be given for several weeks, but not longer, because the patient must have protein to live. The kidneys must eliminate these minimum quantities of protein or the patient will die, because there are no successful additional means of getting rid of nitrogen. Purging and sweating for chronic cases have relatively little value because they will not dispose of much nitrogen over any long period of time. There are no drugs known which will serve as diuretics for nitrogen. There is no way of assisting the kidneys outside of the dietary limitation and the providing of sufficient calories in other forms.

Now we turn to the other side—the metabolism of salt and water. We are here dealing with mechanical troubles in the body, and these are treated entirely differently. The basic method is by dieting, which means the restriction of salt and water intake. You cannot restrict the water intake very far (although the textbooks talk about dry diet) as long as you are giving salt, because with salt the patient has thirst, and thirst or dryness is harmful to the body. Take away the salt and you relieve thirst; you thus automatically limit the water intake. Regardless of the cause of edema, even if it be a cardiac edema, the most important method of treatment is by salt-free diet.

This idea is entirely contrary to the usual practice and may come as a surprise to the average physician, who thinks that digitalis is the most important primary step in treating cardiac edema. The difference is this, that if you have an edema which is due to salt retention in the body, it is better to clear up that edema by not giving the salt than it is to give the salt and then use a drug to compel the heart to dispose of this load. That is the principle of sparing function instead of over-driving function. In every cardiac case digitalis will ultimately lose its virtue, and you cannot continue to get its effect forever. You can get the effect of salt-free diet indefinitely. It does not harm the patient. Keep it up as long as you please, and, if you then need digitalis as an additional help or for emergencies, you have it to fall back upon.

The diet is still more important in the renal and vascular forms of edema. Here digitalis is of very little avail—that is, if the edema is not of cardiac origin—but the vast majority of these cases clear up on diet alone. If diet alone fails, then you do have diuretic drugs to fall back on. These are the well-known purines and others, and finally the most powerful ones introduced recently in mercurial compounds such as novasurol and salyrgan. These latter will often drive out edema when everything else fails. They can be used in cardiac cases and in pure vascular cases, but they can be used in severe nephritic cases. In other words they cannot be safely used in renal cases with high nitrogen retention. When

possible, it is better to clear up edema than to let it persist. The heart works better after the edema is cleared up and the entire condition is better.

Again, in these vascular or renal cases I would emphasize above everything the principle of sparing function. It is wrong practice to give salt and then to give diuretics to drive out the salt. The opposite principle is to avoid giving the salt and thus allow the damaged organs a rest, and not resort to driving the organs unless rest is insufficient to clear up the edema.

On all the points mentioned thus far under cardiorenal vascular disorders, namely, the treatment of cardiac cases and of edema, there is no serious dispute, but when we turn to hypertension dispute is encountered immediately, because the leading authorities have not accepted the view that hypertension has anything to do with salt metabolism. This is an instance where many of the rank and file of the medical profession are ahead of the leaders, the holders of university chairs, the writers of textbooks, and so on. Perhaps such persons feel too firmly bound by their own past utterances. On the other hand, the treatment by salt restriction is spreading rapidly among the general profession, for the simple reason that it works. If any of you are in doubt, all you need do is to try it and convince yourselves that a sufficiently accurate and prolonged salt restriction in a reasonable series of cases will demonstrate the control of hypertension by this form of diet. As Dr. Duncan stated, and as stated by Dr. Blaisdell

and others this morning, the diet must be strictly salt free; that is, the chloride output must be reduced to one-half a gram in twenty-four hours. The salt-free diet sounds very easy. That is why so many failures occur. It is one of the hardest of all diets to give and your attempts to use it will fail unless you check up the results by laboratory analyses. You may think you have your patient on salt-free diet when the laboratory tests show that he is getting several grams of salt per day, and that is the reason why you are not getting good results.

Now just as diabetes was proved under accurate treatment to be not a progressive disease, although the preceding generations up to this had considered it as a typically progressive disease, so also we find the facts to be with this great group of renal and vascular disorders that have heretofore been classed as hopelessly progressive and fatal processes. Hypertension has been supposed to run a certain course, either a few years or many years, but gradually becoming worse until death ensues. The same has been held true with different forms of nephritis. That opinion I am now convinced, after eight or nine years of work, is entirely false. The vast majority of these cases can be held stationary or be made to improve. In some severe cases there is too much organic change. In those cases fatal results necessarily follow, but yet they follow usually after a long time: and even in those cases—the very severe ones—you can observe benefit and you can lengthen the lives and diminish

the severity of the symptoms in your patients.

From this group I pass to another disease which is not so common, but which has been considered even more fatal, and that is cirrhosis of the liver. It belongs in this same category of metabolic disorders. Some infection or intoxication has attacked the liver and the well-known symptoms follow. In treating a disease of this group, remember we aim to spare or assist the function of the impaired organ. We have to consider what is the function of the liver in dealing with foods. One function pertains to the protein. Protein makes a strain on the liver. Therefore, with liver disease, we give a low protein diet; it may be only 30 or 40 grams a day. Also in liver disease there is a tendency to fatty deposit, which in cirrhosis causes the yellow color. Therefore we give a low fat diet—almost a fat-free diet—in order to spare the liver from the burning or storing of fat. On the other hand carbohydrate is good for the liver. High carbohydrate feeding protects the liver in large measure against chlorform, arsenic and various other drugs that specifically cause fatty infiltration of the liver. Therefore we give maximum quantities of carbohydrate to fill the liver with glycogen.

Another thing: In cirrhosis of the liver we find obstruction of circulation through the liver, and with that ascites, in other words a form of edema. In the early stages there is edema in the liver itself. Therefore we use salt-free diet, that is, we use it in the early

stages of congestion and edema of the liver, and in the later stages where there is ascites, because ascites consists of salt and water and you will not have so much ascites if you do not furnish the salt to make it out of. Furthermore, the ascites is often so severe that it will not be cleared up by a mere salt-free diet and will return after tapping. Therefore, if possible, instead of tapping, we use diuretics such as novasurol or salyrgan, which will frequently clear up ascites to a very marked degree. There are cases in the literature of 10 or 20 quarts of water being eliminated within a couple of days. We usually do not try for such tremendous effects as that. I think milder measures are preferable. In one of our patients, whom Dr. Duncan also saw, we found a salt retention of as high as 300 grams. No wonder the patient had ascites when he was storing up so much salt in all the tissues of his body, not simply in his abdomen. By clearing out all the salt thus stored, you greatly diminish the tendency to ascites. This entire prescription means a diet that is hard to give. A diet that is extremely low in protein, almost free from fat, and free from salt, almost entirely formed of carbohydrate, surely requires a very skilled dietitian.

I think the results in the advanced stages of cirrhosis are poorer than in any other of the metabolic diseases. Diseases of the liver are very hard to control; but, even so, the results are striking, and the relief of symptoms, the return of color and of strength and ability to do things is altogether

unparalleled by anything in the former treatment of cirrhosis. Difficult as it is, this treatment is well worth using.

Finally, I will mention briefly the anemias, particularly pernicious anemia. Here we have the same old story, apparently, of infection or intoxication damaging the blood-forming organs, and the result appearing as a disease which has typically been classed as one of the progressive, fatal, hopeless conditions. As soon as it is brought into the metabolic group, it appears to be no longer progressive and no longer hopeless. We began treating this disease with salt-free diet because of the edema that occurs in many cases, and we were experimenting with liver treatment when Minot and Murphy, in Boston, did it better than we were doing by using larger feedings of liver. In successful liver treatment we must commonly give our patients a half pound or pound of liver a day whether they like it or not. That means that the liver must be cooked in all sorts of ways to disguise it, but this can be done. The first obstacle encountered is the lack of appetite in many of the severe cases, but that is overcome by the liver diet itself. In Boston they have had cases where no food could be taken and where they had to feed with a stomach tube. We have not had quite that degree of difficulty, but yet it has sometimes been anything but easy. The results are among the most prompt and the most positive of any form of treatment for any disease. The lowest blood record that we have is that of a patient entering with 520,000 red

cells and 2,000 white cells. Within a week we see changes in these patients. The yellow color is lost, the appetite is better, the strength is improving, and all the symptoms—and I might enumerate the whole series—are diminishing. The patient mentioned has now about 4,000,000 red cells. Also, we no longer think of using arsenic or other drugs or transfusion. The milder cases come back almost to normal blood counts. The severe cases retain certain peculiarities of the picture which characterize pernicious anemia, and the count may remain in the neighborhood of 4,000,000, but these patients are restored to good working capacity and they act like normal people. These results are permanent for a period of at least two years, and we think they are probably actually permanent. They are not accidental, because they are too uniform. Relapses apparently do not occur in patients who continue the treatment. On the other hand, when the patients become tired of the diet and abandon it, they proceed to grow worse or die in the typical old-fashioned way.

The results in other anemias are not the same. The so-called hemolytic anemia responds to some extent, but not so well. According to the Boston reports, secondary anemias do not respond, as a rule, to liver feeding. Our experience, as far as we can judge from present information, seems to be better than in Boston as regards these other anemias, and I believe the difference lies in our salt-free diet. Certain observations which I cannot go into here have convinced me that there is

benefit in the salt-free diet for anemia, even though results are obtained in pernicious anemia by feeding liver without regard to salt.

Now this has made a long talk, and my only hope is that you have got from it a general idea of this group of metabolic disorders and the main principles of their etiology and therapy, namely, that the primary lesion throughout this group arises from infection

or intoxication: that the seeming progressiveness in all these instances results from functional overstrain; that by sparing the function you halt the progressiveness and save the patients from their symptoms, from disability, and from the death that used to come to them. That is why the treatment of this group of disorders is one of the most pleasing forms of medical practice to-day. [Applause.]

*THE SIGNIFICANCE OF EARLY RETINAL CHANGES IN ARTERIOSCLEROSIS

By HOWARD F. HILL, M. D., Waterville, Me.

The purpose of this brief paper is to discuss the early retinal changes in arteriosclerosis and their significance to the practitioner.

There are three main factors which I wish to emphasize.

First: That these *early* changes are of utmost diagnostic and prognostic value, and are too frequently overlooked.

Second: That retinal arteriosclerosis has a definite relation to arteriosclerosis of the terminal arteries of the brain.

Last: A description of what are the real early changes.

This afternoon I will only take up the condition of early arteriosclerosis, not going into the complications other than the associated cerebral disease.

I believe the oculist should consider that the fundus examination of a patient in (later) life is an extremely important health examination. It is very necessary to study carefully the retinal ves-

sels of every such patient passing through our hands, for there is a wealth of information written there for the painstaking observer.

One of the greatest dangers to the public, in the flourishing business of optometry, is the loss of *this* opportunity for check-up by the patient.

With an early warning of danger, the insidious progress of the degenerative diseases may be prevented or retarded by careful routine of life under the care of an internist.

From the manner of development of the retinal blood vessels, and their source of blood supply, it is to be expected that disease of its vessels will be similar in kind, and perhaps degree, to that in the smaller vessels in the brain.

From their character as end arteries, they resemble the blood vessels, which supply the large ganglia, whose lesions lead to apoplexies and softenings.

* Read at the June meeting of the Maine Medical Association.

Now, then, remember that the retinal vessels can be examined in their natural condition during life under a magnification of 15 diameters. The retinal vessels are the *only cerebral* vessels which are visible and the only vessels in the whole body where the slight beginning signs of disease can be made out.

Hertel suggests that finding of retinal arteriosclerosis assumes a similar condition in the cerebral vessels. But, on the other hand, there may be disease of the large cerebral vessels which may not affect the retina.

Gunn found marked arteriosclerosis of the retina in 24 out of 28 cases of hemiplegia.

Other reports show nearly the same high percentage.

In Moore's interesting series of cases in London, where he followed patients along after they showed the early lesions, these usually went on to definite cerebral disease.

Therefore it is *clear* that the relation between vascular sclerotic disease of the brain and the ophthalmological evidence of arteriosclerosis of the retinal vessels is one of *much importance*.

Now, then, what *are* these earliest retinal changes that we should be on the lookout for? Of course we do not refer to the advanced pictures of arterial degeneration which are evident at a glance. Many patients come to the oculist with visual symptoms as the first complaint in a *well advanced* case of disease of the vascular system with hemorrhages, retinitis and evidences of kidney complications. Most of these patients are presbyopic, and have already had to procure glasses, for reading at least, and if at the same time a careful routine fundus examination had been done, warning signs would have been picked up.

In following the vessels out from the disc with the ophthalmoscope, we must have in mind the general pathology of the disease we seek, and remember that the first evidence may be scanty.

It is well to allow for the *relative importance* of the various changes which are indicative of arteriosclerosis.

(a) *Tortuosity* is given by some writers as a valuable sign. However, this is rarely marked in degree, and the large variations in the normal retinal vessels make it an uncertain *early* sign. DeSchweinitz mentions the small *cock-screw artery*, especially in the macular region. This is extremely valuable, but rarely found in the early stages.

(b) *Slight congestion of the optic disc* again is difficult to differentiate from the normal variation. It is valuable only along with other evidence.

(c) Although very advanced arteriosclerosis may be present without *irregularity of the lumen* of the retinal vessels, when *this* feature is present even in a slight degree it denotes severe disease with high blood pressure. Coates has suggested that this is probably due to more or less localized areas of *endothelial* thickening. While this is common in the central artery, the retinal branches more often show thickening of the middle and external layer, probably accounting for its infrequency in the retina.

(d) One of the most important signs, and always present in this disease, is an unusual *brightness of the central light streak*. There is also a marked brightness of the whole vessel, which has a sort of burnished appearance. Coates ascribes this to a thickening of the middle coat of the vessel wall. Again, as this is an exaggeration of the normal, we must judge with care before convicting. If present in the second

and third branches, and especially if the central streak is slightly *irregular*, the evidence is convincing.

(e) *Edema of the retina* is for the most part a late sign, although described by Gunn as one of the important changes. *Probably the most reliable manifestations of vessel disease* is found by a study of the *arterio-venous crossings*. The later changes are unmistakable and the early changes more prominent than in other regions.

(f) First, there is a general *loss of translucency* of the artery. The shadow of the underlying vein is not made out, due to the opaqueness of the arterial wall.

(g) Then one finds here and there the beginning of *mechanical obstruction*. There is a slight enlargement of the vein distal to the crossing, increasing as the disease progresses. This is extremely important.

(h) Later, due to thickening of the wall of the artery, the vein on either side of it is invisible and gives the appearance of a *gap in the vein* through which the artery passes. This gap appears to be wider than the vessel which seems to pass through it.

(i) Later the vein is *displaced* by the

sclerosed vessel above it, but this is in the more advanced stages.

The most valuable point about these changes at the arterial crossings is that the *degree of sclerosis* can be estimated by the extent of the lesion. In following cases along *these points* are watched with interest. As Moore says, "*They are never apart from arteriosclerosis, and they are always present in sclerosis of any extent.*"

These earlier evidences of retinal sclerosis usually produce *no* local symptoms, and usually precede cerebral symptoms. They require more than a casual glance through a small pupil at the nerve head if they are to be disclosed during routine refracting.

Cushing has intimated that the ophthalmologist is overlooking some of the earlier changes in the nerve head due to intracranial pressure, meningitis, etc. *However, we must remember that these are only a small portion of the valuable signs that one may miss. The nerve head is only the beginning and we also have the cerebral vessels to study in their active living state, which often show early lesions in many general diseases.*

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Acetarstone.

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Ephedrine Sulphate--Abbott.

Fairchild Bros. & Foster:

B. Acidophilus Milk—Fairchild.

Horlick's Malted Milk Corporation:

Horlick's Maltose-Dextrin Milk Modifier.

Parke, Davis & Co.:

Alfalfa Pollen Protein Extract Diagnostic—P., D. & Co.

Kidney Bean Protein Extract—P., D. & Co.

Typhoid Vaccine (Prophylactic).

Typhoid-Paratyphoid Vaccine (Prophylactic).

E. R. Squibb & Sons:

Ovarian Hormone—Squibb.



DR. ELWELL

NECROLOGY

Walter Edward Elwell, Portland,
1866-1927

Born in Portland, April 21, 1866, the son of Edward Henry and Sarah Catherine Elwell. He was educated in the public schools and obtained his medical degree from Bowdoin in 1887. He served as an interne at the Maine General Hospital for one year and then became supervisor at the Veterans' Home at Togus, with the rank of Lieutenant, and for his excellent services he was promoted to the rank of Colonel, and to the entire medical charge of all Veterans' Homes throughout the nation.

Dr. Elwell died January 13, 1927, after a long illness, due to thyroid complications.

COUNTY NEWS AND NOTES

Franklin County Medical Society

On Wednesday, August 10th, the Franklin County Medical Society held its annual meeting at The Herbert, Kingfield, and the following officers were elected for the coming year: President, T. E. Makepeace, Farmington; Vice-President, John Moulton, Rangeley; Secretary-Treasurer, G. L. Pratt, Farmington; Delegate to Maine Medical Association, T. E. Makepeace, Farmington; Alternate Delegate, Cecil F. Thompson, Phillips; Censor for three years, V. O. White, East Dixfield; Censor for two years, E. B. Currier, Phillips.

Dr. Cecil F. Thompson of Phillips was elected to membership. The speaker of the meeting was Dr. H. S. Emery of Portland, who gave a very interest-

ing paper on the treatment of diabetes.

After a fine dinner, a very pleasing entertainment was furnished by Mrs. Nina D. Palmer and Dr. Makepeace.

GEORGE L. PRATT,
Secretary.

BOOK REVIEW

American Medical Directory. Tenth edition. Published by the American Medical Association, 535 North Dearborn Street, Chicago.

For more than twenty years the American Medical Association has been publishing a directory of the medical profession. Ten editions have appeared, the last one (1927) being just off the press. The new Tenth Edition includes 164,002 names. The Directory gives proof of the right of each physician listed to practice medicine,

Summer Diarrhea

The following formula provides a means of supplying the principal fuel utilized in the body for the production of heat and energy and furnishes immediately available nutrition well suited to protect the proteins of the body, to prevent rapid loss of weight, to resist the activity of putrefactive bacteria, and to favor a retention of fluids and salts in the body tissues:

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While the condition of the baby will guide the physician in regard to the amount and intervals of feeding, the usual custom is to give one to three ounces every hour or two until the stools lessen in number and improve in character. The food mixture may then be gradually strengthened by substituting one ounce of skimmed milk for one ounce of water until the amount of skimmed milk is equal to the quantity of milk usually employed in normal conditions. Finally the fat of the milk may be gradually replaced, but as milk fat is likely to be digested with much difficulty after an attack of diarrhea it is good judgment to continue to leave out the cream until the baby has fully recovered.

Further details in relation to this subject are set forth in a pamphlet entitled, "The Feeding of Infants in Diarrhea", and in our book, "Formulas for Infant Feeding".

This literature will be sent to physicians upon request.

Mellin's Food Co.,

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Boston, Mass.

namely, time and place of graduation, and year of license. In addition, society membership, specialty and office hours are included. The information concerning hospitals and sanitariums of the United States is another valuable and extensive feature. The list of physicians in each state is preceded by a digest of the laws governing medical practice in that state. The book, in short, is one vast source of reliable data concerning the personnel of the medical profession and the institutions and activities closely related to it. It contains 2,575 pages, and is sold for \$15.00.

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No. 10

*ANNUAL ORATION

By DR. ROCK SLEYSER, Wauwatosa, Wisconsin.

Trustee of American Medical Association.

We who have spent years in medical organization, and have studied the problems of the average physician, know that he is usually more concerned and annoyed by the irregular and cult practitioner than by any other problem he faces. To resort to the vernacular, "it gets his goat," and he cannot understand the psychology of the public mind, nor does he realize that it is largely his failure to "understand" that accounts for the condition. He assumes that quackery is new, has forgotten his history, and has failed to note a graveyard galore with the tombstones of departed medical fads.

To lead up to my subject, and for a possible moment's entertainment as well, let us pause and read the epitaphs of a few of the ghosts of yesteryear. Over in one corner of the graveyard we find the markers of the personal healers. Many date back to antiquity and cannot be read, but they were known far and wide in their day. If there was anything the matter with you, all you had to do was to go and be "touched" by

them, and they "touched" you more ways than one. They fairly radiated the healing power and "cured" by the thousands. Curiously we find the names of some who lived in this enlightened age—mostly of the "religious" variety. Here are the tombs of Dowie, and Schlatter, and Phineas Quimby, who in three days cured Mrs. Eddy of "spinal nervousness." Phineas, it seems, was the only one who "understood" her case, and she moved here to Portland for a time to be near him. She extolled his wisdom, blossomed under the inspiration of this clairvoyant healer, and gradually elaborated her own method of healing. Schlatter, fresh from the mountains near Denver, where he had fasted forty days and communed with Deity, treated tens of thousands until the postal authorities decided that blessing handkerchiefs at so much per, and sending them to the sick by mail, constituted fraud. Here to one side is the resting place of Mesmer, who first cured by magnets, and then by personal magnetism, and here all that remains of Dr.

* Read before the Annual Meeting of the Maine Medical Association at Portland, June, 1927.

Elisha Perkins, whose super-mind invented the famous Perkins tractors, made of a number of metals fused together. They were supplied free to the clergy, at five pounds to the professional man, and at ten pounds to the general public. It was necessary that they be drawn downward in effecting cures, or the trouble would be aggravated. Due to the "jealousy and persecution" of the physicians of the time, the clergy, and even royalty, came to the rescue of the much-maligned Perkins, and founded a Perkinian Institute to cure the poor. It is estimated by his son that 1,500,000 pairs of tractors were sold. We are reminded here, too, of those who cured by hypnotism and absent treatment, and even their progeny are still with us. Truly the ways of the healer passeth understanding.

It is interesting to follow the development of the various drug "cures." Just before our time there were periods when the public dosed itself with antimony and then with calomel for every illness under the sun, and they were "cured." Then came the era of sarsaparillas, and everyone took a "blood purifier" in the spring. All the patent insides of the country papers carried pages of advertising. The country drug store, and even the grocery, paid expenses on the sarsaparilla sales. Hood and Ayer became household saints. Of course sarsaparilla had no medicinal value, but it had a wonderful effect on the mind. As soon as sarsaparilla lost its vogue, it was succeeded in the affections of the public by the whiskey tonics. They were usually called "nerve tonics," but they "cured" anything. Advertising increased and the religious press was especially good to them. And then came the cures for feminine ills—good

old Lydia Pinkham—and then the lithium waters, the kidney cures, and the consumption cures as well. Let us not pass by the "appliance cures"—the liver pads, electric belts, batteries, electric rings and insoles, and even our old friend, the chest protector, which wouldn't "protect" unless scapular made and red. But do not ridicule—these were serious worries to the practitioner of that day. Metal or rubber, electric, magnetic or horse-chestnut-tic—applied inside or outside—it cured; and the honest, hard-working and studious physician wondered at humanity and its fickle loves as we wonder when we tune in and get Davenport and Zion City.

One of the most amusing and tragic chapters in this comedy-drama should be given over to the manipulation cures. They have varied from a gentle stroking to the "adjustment of a sub-luxation." The stroking of a lame shoulder by a magnetic healer caused the pain to go right down the arm and to pass out the ends of the fingers. The greatest of these artists in all time has been the bone setter. By a supernatural gift his delicate fingers have always been able to detect those terrible "maladjustments" of bones which "interfere with the flow of the vital forces." This gift, we are told, was formerly hereditary in certain families, but a kind Providence now makes it possible for the farmhand or tinsmith to acquire the art, the only requirement being a certain tuition—and if unable to leave the shop or the crops, it can be obtained via the mail-order route quite as well. The old-time bone setters were really quite modest in their claims, but there has been a bone-setting evolution in the last few years. Bone setting became spine setting.

Andrew Still, of Kansas, blazed the trail, and then came one, Palmer, who painted it red. Neither could keep their "great discoveries" to themselves nor apply them to the cure of suffering humanity. Indeed not! They were both divinely commissioned to teach, and teach they sure have. Both have had an abiding sense of having received a mission from on high, and Still has written "God is the father of osteopathy, and I am not ashamed of his child."

Both of the latter-day bone-setting cults, like the "scientists," have been able to impress the gullible by their use of words — words and more words. Jumbled together they sound impressive, and who cares whether they mean anything. Listen to this definition of chiropractic, formulated by the apostles of the cult themselves for the New Jersey legislature:

"The term 'chiropractic' when used in this act shall be construed to mean and to be the name given to the study and application of a universal philosophy of biology, theology, theosophy, health, disease, death, the science of the cause of disease and art of permitting the restoration of the triune relationship between all attributes necessary to normal composite forms, to harmonious quantities and qualities, by placing in juxtaposition the abnormal concrete positions of definite mechanical portions with each other by hand, thus correcting all subluxations of the articulations of the spinal column, for the purpose of permitting the recreation of all normal cyclic currents through nerves that were formerly not permitted to be transmitted through impingement, but have now assumed their normal size and capacity for conduction as they emanate through intervertebral foramina — the expressions of which they were formerly excessive or partially lacking—named 'disease'."

Shades of Noah Webster! Where are there words to comment on such twaddle, and cult and pseudo-religious literature is full of it.

People have always been impressed by any treatment of disease which had something mystical about it, or which appealed to their religious side. Great-rakes, in Harvey's time, cured thousands because he had a commission from on high. Dowie, in our day, as Elijah, returned to earth and saved my neighbors. But beside these and scores of other personal religious healers, we have had certain widespread movements, such as Spiritualism, New Thought and Christian Science. They have operated through mediums and healers. Mrs. Eddy, cured of "spinal nervousness" by Quimby, modified his belief that "sickness is the effect of belief," declared that "disease is an error of mortal mind," and established a new system of healing and religious belief that swept the country. Her philosophy of matter as non-existent is not new or original with her. It has been handed down for thousands of years, but Mrs. Eddy was a better promoter than its originator. There is no denying that her teachings have been very helpful to many people who needed a definite change in their attitude of mind. This does not mean that their ills were necessarily imaginary, but that the physical basis for them was slight compared with the exaggerated significance their mental state attached to them. Mention, in passing, should be made of church healing and of the number of shrines which have shown curative power. All sorts of religions have prospered on their success in healing the sick. These successes have been attained because of the extreme suggestibility of people, their tendency to make themselves ill by suggestion, and then

use the same method in adopting a cure. This is human nature. It has always been, is now, and ever shall be.

One might go on with this story hour after hour, each chapter more absurd than the other, and yet each of these healers or systems of healing has attained therapeutic results with certain patients who have gone from physician to physician without obtaining relief.* The "cure" may have come from one believed to have a commission from on high, it may have been poor whiskey with a bitter taste, a punch in a perfectly good vertebra by an ex-sewing machine agent, a harmless electricless belt, the printer's ink taken with a bottle of swamp root, it may have been any hook on which to hang a therapeutic hope—but it may have cured. There is no denying this, for it is true. "Cures" of these types have been working successfully since earliest history. We may laugh at the absurdities recorded, but human nature does not change, and our present age does not lag behind in its tendency to be cured by anything and everything that changes the patient's mental attitude toward himself and his ills. People healed in these manners are not limited to any strata in life. They include the rich and the poor, the ignorant and educated; in fact, it is usually the educated mind that is most suggestible. Remember, children, half-wits and idiots are never cured in this manner—the quack has learned to waste no time on them. On the other hand, school teachers, clergymen and college professors are often easy prey, and Walsh names in addition the "high-brows," and defines them as "those with more education than intelligence."

Probably a half of the complaints of people are due more to the fear and

anxiety of a slight ailment than of the real ailment itself. A suggestion of cure, given seriously and accepted, will ease the mental state, relieve anxiety, give nature a chance, and the suggestion is credited with a cure. Why contend that these people had nothing the matter with them and were not "cured" at all? Why speak of imaginary ills? After all, the patient is the best judge of his feelings, even though he is no judge of his physical condition. An insignificant functional disorder may have been exaggerated in his mind into a serious ailment. If it has interfered with the regular order of his life, his work, and his happiness, it is of tremendous importance to him, and he gladly gives full credit to any relief which may be given him. The sufferer from a "complaint" is quite as much in need of the sympathetic understanding of a physician as is the sufferer from a definite pathological condition. Failing to find this, if relieved by the charlatan or quack, is it to be wondered at if he, in his joy and relief, feels he has a share in the discovery of a great remedial agent, and forthwith proclaims his "cure" from the housetops, in an unselfish desire to share his great find with others? These are the people who, from the beginning of time, have furnished the advertising for the impostor and the dishonest practitioner, and we ourselves have been in a measure to blame.

Psychotherapy has masqueraded under so many forms that a short historical résumé appeared necessary as an introduction. I have hurriedly led you through a graveyard of old-time quackery to that of the present day, to show that conditions are not essentially different in the year of our Lord 1927. Each generation has seen its crop of

quackery and irregular practice. Each generation has seen its quota of cures credited to worthless fads and dishonest healers of the sick. It has been the history of the past, and it will be written as the history of the future. Let us see to what extent we may be blamed.

In a recent paper published in the *Journal of the A. M. A.*, Francis W. Peabody, of Boston, says: "The most common criticism made at present by older practitioners is that young graduates have been taught a great deal about the mechanism of, but very little about the practice of medicine; or, to put it more bluntly, they are too 'scientific' and do not know how to take care of patients." I do not think this is a just criticism of the recent graduates alone. It applies to older men as well, and to many of the leading lights of our profession. Many of them have failed to realize (as Dr. Peabody puts it) that "what is spoken of as a 'clinical picture' is not just a photograph of a man sick in bed; it is an impressionistic painting of the patient surrounded by his home, his work, his relatives, his friends, his joys, sorrows, hopes and fears. Too often he is referred to, not as Henry Jones, but as 'that case of mitral stenosis in the second bed on the left.' The trouble is that this leads to the patient being treated as a case of mitral stenosis and not as a sick man. The disease is treated, but Henry Jones, lying awake nights while he worries about his wife and children, represents a problem that is much more complex than the pathologic physiology of mitral stenosis, and he is apt to improve very slowly unless a discerning intern happens to discover why it is that even large doses of digitalis fail to slow his heart rate."

Medical education has extended and

broadened to a point where we are turning out better scientists than doctors. Attention is being concentrated upon the disease to the exclusion of the suffering patient. Exhaustive laboratory methods and technical tests can never take the place of the intimate personal attention and encouragement the sick man craves. Too much science and too little human interest drives him to the quack, where he receives a personality study, a satisfaction for mental distress, and some treatment, at least, for the symptoms of which he complains. He has been treated as a man who is sick, rather than as the possessor of an interesting disease; or, he has received a careful consideration of his complaints, rather than a brusque statement that physical and laboratory examinations there is nothing the matter with him. We have wandered in our search for truth too far from the "old-time doctor" attitude toward the patient. Too often the patient has been the mere vehicle of an interesting disease, and the pathology of the condition has occupied the center of the stage to the exclusion of the patient himself. Either this, or, finding no pathology, we have lost interest, become impatient, and dismissed one unfit for life through mental suffering. What the quack cures is not always "imaginary" ills. The physical basis may be slight, but it is very real to the patient. He persuades himself that he has a very serious condition. A vicious circle is formed. Fear masters him. Sleep and appetite fail or are impaired. He becomes introspective, morbid and depressed, exercises less, becomes over-careful of his diet. He then develops a host of minor symptoms consequent to his changed habits of living, but which he believes due to his disease. We have

presented to us then the typical psychoneurotic, who comprises from one-third to one-half of every general practitioner's practice; who is the least understood, and the most in need of understanding. We have the type who wanders from physician to physician, and, failing to be understood, finally forsakes orthodox methods, falls into the first trap set by quackery, and is often cured.

I plead, then, for a better understanding of the psychoneuroses; for a recognition and treatment of the patient's illness, imaginary or real, spiritual or somatic. I plead for a study of the patient himself—a study of his situation in life, his habits, his conflicts, his inadequacies and his adjustments. Many a patient comes to you with a condition which, entirely outside of his consciousness, is a defense reaction pure and simple—an alibi for his failure to cope with some difficult situation in life. A study of the patient and his problems will disclose these tremendously important factors in his illness, and I cannot conceive that the trained medical mind is not better fitted than the quacks to solve these problems of human behavior. When it is recognized that the mind and a little knowledge of psychology play such a leading role in the comedy of life as Perkins and Eddy, Quimby and Cone, Dowie and Palmer, have shown, is it not time that the trained medical practitioner gives a better attention to this extremely large class of patients, acquires a better knowledge of psychology, and studies his patient as a human being out of tune with life and not as a "case." Is it not time that we sense our responsibility, turn on the searchlight of truth and knowledge, and displace pseudo-medicine, pseudo-religion

and pseudo-psychology in the treatment of human ills.

Let us realize that life is artificial. From the cradle to the grave we are in a constant conflict between our natural instincts and the inhibitions society has placed upon us. Some are unable to make the adjustment, and they are the unhappy, the unsuccessful, and the chronically ill. Facing a difficult or intolerable situation, they often unconsciously run away from it via the invalid route. The nervous prostration, the dyspepsia, the constant headaches, the backaches, the insomnia, general weakness, palpitation, phobias, ties, dizziness, etc., which come to your attention year in and year out, and finally drift into the hands of the quack, are only too often behavior reactions to a difficult situation which you could have solved. It is an unconscious effort to escape from something painful or perplexing, and it is the individual more than his complaints that needs your attention and your sympathetic understanding. These are not cases for routine treatment. Rather, they are misfits in the scheme of life demanding individualization. Treatment means management of the individual more than the management of his complaints.

Our work as physicians is to overhaul the individual who comes to us with the most complicated piece of machinery in the world—the human body—to study the difficulties he is experiencing in his mechanism, to repair the defects, and to send him out on the voyage of life as nearly perfect and with as few handicaps as possible. Have we done this to the best of our ability? Is our job only to maintain the organism in a fit state to do its work, whatever that may be? Have we no concern with the doing of

the work, with what the work may be, and with what efficiency it may be performed?

I like to recall Mercier's manner of handling this subject. He likens the relation of the physician toward his patient to the position of the shipwright and the engineer toward the vessel on which they are engaged. Like them, the physician must be thoroughly acquainted with the structure and function of every part, and, like them, he must be upon the watch to repair the structure and correct the function when the one is damaged or the other is at fault; but with the ship's course the shipwright or the engineer has nothing to do. That is a matter altogether beyond their province, but it is not a matter beyond the province of the physician in relation to his patient. The true physician, ready and prepared to help his patient in the voyage of life, must be ready to leave the engine room for the quarter-deck. His concern should reach beyond the integrity of the structure or the efficiency of the engines. He should be able to set the ship's course, to note the way in which she comports herself in wind and weather, to study charts and tides, stars and clouds, to watch the barometer and to sound the lead, and to take up her relation to the world in which she moves. The most wonderful vessel afloat never reaches her harbor without her pilot to guide her, and is useless without him. The most perfect piece of machinery is valueless without a trained operator. The best human mechanism in the world is a failure without a healthy, normal mind in control, and if we, as physicians, are to assume any responsibility for the success or failure of the individual in life, we must study him, not

only *per se*, but in relation to the world in which he exists and in which he has to make his existence as well.

In closing, may I say a word of reassurance to the faint-hearted. The practice of medicine has never been as alluring, has never held the possibilities, and has never promised the rewards it does to-day. We shall have nothing taken away from us which we prove worthy to retain. We shall not fail to receive any reward unless we shirk the labor and the responsibilities that go with our chosen field of endeavor. In my address to-night I have tried to point out a field we have neglected. I do not believe we have measured up to our responsibilities in the care and treatment of the functional nervous disorders. Let us endeavor to give these people less treatment and more understanding. This will solve the problem of quacks and sects and cults in medicine. Let us not allow our interest in science to change our attitude toward those who need our help. Let us be, first of all, physicians—those who minister to the sick. Let us not renounce the place of the family doctor in the hearts of the American people—the doctor to whom they went with their worries as well as their ills, for worries and ills bear a very close relationship which the laboratory will not show. Let us work as the Great Physician would have us, with the love of the human soul we treat in our hearts, avoiding as our goals the stars of wealth or fame, and clinging to the old ideals—the ideals of the most honored, most respected calling in all this world of ours. Let us work for

“ . . . the joy of the working,
And each, in his separate star,
Shall draw the things as he sees it,
For the God of things as they are.”

*For a complete history of the “Cures That Have Failed,” the reader is referred to Dr. James L. Walsh's “Cures,” published by Appleton's.

*THE MEDICAL ASPECT OF GASTRIC AND DUODENAL ULCERS

By DR. JOHN O. PIPER, Waterville, Me.

Gastric and duodenal ulcers have been of interest to the medical profession for a long time, largely on account of their unsatisfactory treatment. This is probably due to the great uncertainty that has existed and still exists, regarding the exact underlying cause of the ulcer.

As to the etiology of this disease, we must consider several factors:

(1) *Sex.* For many years it was thought that gastric ulcers, especially, were more frequent in the young female, but to-day, with the refinements of diagnosis, it has been found in the hands of most clinicians, that it is really more common in the male. As the diagnosis used to depend chiefly on hematemesis, and this was found mostly in the young chlorotic woman, ulcer was believed to occur largely in women.

(2) *Age.* Ulcer is hardly ever found in infancy, childhood or adolescence, but more in the early thirties and up to the age of sixty years. Those occurring in later life, are probably due to circulatory changes in the gastric wall. Deaver, years ago, made the observation that gastric or duodenal ulcers were apparently secondary to appendicitis in a large number of instances.

(3) *Race.* Ulcer is most commonly encountered in Great Britain, Germany, France and the United States. It occurs much less frequently among Chinese and Japanese than in the inhabitants of Western countries.

(4) *Heredity.* There seems to be a family predisposition to vagatonic states, and vagatonia seems to be linked with a tendency to pylorospasm, hyper-

chlorhydria and ulcer, it seems reasonable to presume a family tendency to ulcer. In fact, it has been observed that several members of the same family tree, have suffered from this disease. It would seem that this tendency came, however, through the autonomic nervous system.

(5) *Individual Susceptibility.* Under this head might be mentioned the anaphylactic sensitization to food proteins. Infections or other agents might be hidden in the tissues. It is a fact, however, that rest, ease and outdoor exercise do exert a beneficial effect on gastric symptoms, and restore the organs of digestion to normality, while debilitating agencies, such as chlorosis, nervous fatigue and irritability, with their digestive upsets, do predispose to ulcer formation.

(6) *Social Conditions.* I do not believe that this, *per se*, has a very great influence to-day, as most all classes of people live fairly well. However, whether they are rich or poor, if they lead a strenuous life of mental worry and strain, or great hardships, they are more prone to develop ulcer.

(7) *Toxic Agents.* It has frequently been observed that people who are, or have been heavy drinkers, are apt to be affected with ulcer. This probably is due to their irritant effect, causing local circulatory changes in the stomach or duodenum.

(8) *Diet.* It would seem that diet must play an important part in ulcer production, due to the constant trauma by indigestible rough foods, in those who

* Read before the Kennebec Medical Society at Waterville, April 5, 1927.

are subjects of pyloro-spasm and hyperchlorhydria. Of course, here we must consider the question of food sensitization, which may cause local hyperemia or herpetic nodules, which, in turn, may break down and be the precursor of an ulcer.

(9) *Worry.* There is probably no greater cause of cardiovascular disease than the mental strain of modern times, and mental strain in most cases means worry. If worry injures the cardiovascular system, it can and does injure all the other organs of the human body, including the stomach. The manner in which this comes about must be speculative. It may be through the endoerines, or an altered chemistry. At any rate, this must be considered, and is probably as important as infections in bringing about organic change in the system.

(10) *Association with Other Diseases.* It has been found that extensive surface burns have often been followed by duodenal ulcers. I have yet to see the reason why this occurs; might it not be due to the long continued infection that usually accompanies the burn, the toxic material from it being eliminated from the liver into the duodenum, thus causing an irritation of the duodenal wall.

(11) *Debility.* I have mentioned the fact that circulatory changes in the gastric wall might be the foundation for development of an ulcer. No doubt this is the prime factor in elderly people. We might also mention focal infection in this connection, causing both debility and ulcer.

(12) *Focal Infection.* This condition is receiving more and more attention each day, as a probable cause of a great many diseases and conditions that develop in the human body. It has been

well established, that infections arising from foci in tonsils, teeth, paranasal sinuses, gall bladder, appendix (as mentioned by Deaver long before we were considering focal infections seriously), kidney, prostate, tubes and ovary are important etiological factors in the formation of gastric and duodenal ulcers. Probably in the case of the teeth, tonsils and paranasal sinuses, the infection is brought about by swallowing infected material, while in the other conditions, it is transported by means of the lymph and blood streams. The streptococcus is the organism most often being found responsible.

(13) *Trophic Disturbances.* Stockton has, for a long time, called attention to a probable herpetic condition of the mucosa, preliminary to the development of an ulcer.

The alteration or cutting off of the nerve supply to certain portions of the stomach, which already has a vagetonic state with pylorospasm and hyperacidity, could well be considered as a very probable cause of ulcer. Again, if a herpetic condition does exist, prior to the development of the ulcer, could we not go further back in the nervous system, and say that a ganglionitis is the cause, as herpes is associated with ganglionitis?

I will not discuss the symptoms of this disease, but will pass on to the diagnosis. I believe that a painstaking history is of paramount importance in the diagnosis of ulcer, as well as in most other diseases we encounter.

The usual history encountered is that the patient has had attacks of some sort of a vague stomach trouble, for periods of varying length, over a long space of time, these symptoms becoming more marked as time goes on. The things

usually complained of are distress, which gradually amounts to actual pain one to three hours after eating, eructations of gas, and a feeling of soreness and tenderness in epigastric region, or in the region of the gall bladder, in duodenal ulcer. The patient may, or may not, have nausea and vomiting. This sense of discomfort lasts until the patient takes more food or a dose of sodium bicarbonate to relieve him. He also may have this pain at night at a certain time, requiring similar means to relieve him.

As time goes on he finds that raw fruits, such as apple, grapefruit, etc., cannot be endured, and he gradually cuts down his diet until, in many instances, he is taking hardly anything but egg and milk, although as a usual thing his appetite is very good.

From the reduced caloric intake, and possibly the constant loss of blood, he becomes anemic and emaciated, and is a worried, haggard-looking individual after it has persisted a long time, although it is surprising how long an ulcer case will remain well nourished in spite of his discomfort. Of course this history is not true in every case. I can well remember one patient who had a terrific attack of bleeding, and yet I was unable to get one bit of history that she had ever had any gastric disturbance. Another case was that of a young man, who was suddenly seized with severe abdominal pain while working on the roof of a house, and had to be carried down from the roof and to the hospital. He was operated on at once, and a perforated gastric ulcer was found. This young man maintained that he had never had any stomach trouble in his life, before this.

I do not believe that ordinary physical examination, actually reveals much

of aid, in the diagnosis of gastric or duodenal ulcer, except to show a tender spot in the case of an open ulcer, and the peristalsis of the stomach in cases of obstructive cicatrices.

There are several examinations that seem of distinct value. The one most important single examination, would seem to me to be the X-ray. The next most important examination, would be the fractional gastric analysis. From this, we can determine several very important things.

(1) The amount of gastric residue, which would show whether there is any obstruction from cicatrices or pylorospasm.

(2) The amount of acid secretion in the stomach over a period of two hours. Usually an ulcer is accompanied by a marked hyperacidity, more especially the duodenal type. This is not always true, however, as there have been many ulcers found, with a hypoacidity, or even an achylia. The latter is not the rule, however.

(3) The presence of blood, by testing the contents for occult, if macroscopic blood is not present. Of course, this must be watched. Some patients have great difficulty in swallowing the tube, and may injure the gastric or esophageal mucous membrane sufficiently, to give the test for occult blood.

(4) By noting the amount left in the stomach at the end of the two-hour period, we can judge pretty well as to the motility of the stomach.

(5) The digestion of food; when it begins and how well it is done. The ulcer cases digest their food fairly well.

(6) The presence or absence of stomach mucus, indicating the possibility of an accompanying gastritis.

The third examination would be the

examination of the stool. The information to be gained here, would be the presence or absence of occult or macroscopic blood. Of course, unless the hemorrhage from an ulcer was very great, we would hardly get macroscopic blood, but we frequently and most always do get occult blood, from an open ulcer. However, we must be careful to rule out other causes for blood in the stool, namely, hemorrhoids, fissure in ano, fistula, hemorrhagic diatheses, etc.

Another test that is used by a great many clinicians, and by them considered of great aid, is the Einhorn string test. This test is done by dropping a bucket, to which a threaded silk string is attached, down into the duodenum, the other end of the string being attached to the nightshirt, this bucket and string staying down all night. The bucket and string are removed in the morning, and if the string is stained with blood, for a distance of not over an inch and a half to two inches, the test is considered positive for an ulcer.

I would again refer to the physical examination, which I said did not reveal much in the way of diagnosing a gastric ulcer, but is of very great importance, in helping to rule out other conditions.

The great controversy in regard to ulcer cases, is not so much as to the etiology or diagnosis, but as to what shall be done with them. Shall they be treated surgically or medically. The controversy will be more concerning the gastric ulcers, than duodenal ulcers, because of the time element, for gastric ulcers are more prone to become malignant, than the latter.

I would say that the indications for which I would refer an ulcer case to the surgeon would be:

(1) Chronic ulcer with pyloric obstruction.

(2) Chronic large ulcer, which has not responded to a rigid plan of medical treatment.

(3) Persistent recurrent hemorrhages.

(4) A perforation, always.

(5) Pyloric ulcer, associated with severe persistent pylorospasm and hypersecretion.

(6) Any case associated with a mass.

(7) Adhesions, or localized peritonitis interfering with gastric functions.

(8) Ulcers associated with gall bladder disease, or a frank case of chronic appendicitis.

(9) Any ulcer of the anterior wall of the stomach, on account of its liability to perforation.

There are two outstanding plans of medical treatment. One, the duodenal feeding by means of the duodenal tube. This method was devised by Max Einhorn, the idea being to give the stomach absolute rest, and in this way the ulcer will heal. The other, the Sippy treatment. This is the greatest advance in the medical treatment of ulcer that has been made to date. To get the best results from this treatment, Sippy's plan should be faithfully carried out. The whole purpose of this treatment, is the prevention of the corrosive action of hydrochloric acid upon the ulcer area, thus allowing the ulcer or ulcers to heal.

The treatment consists of giving milk and cream every hour from 7.00 A. M. to 7.00 P. M., and after a couple of days, an egg is added, and each day some other food is added, which is neutralizing to the acid or will take up more of it. Sippy also gives alkaline powders to counteract the acid present, and he gives

this alkaline in pretty heavy doses. One powder is made up as follows: Heavy calcined magnesia and sodium bicarbonate, each ten grains, given midway between feedings. This is alternated with a powder, containing ten grains of calcium carbonate, and thirty grains of sodium bicarbonate. He drops down the stomach tube frequently, to be sure the acid is neutralized. He also directs,

that a gastric analysis be made at least three times per week. In this way, he finds exactly how much acid the stomach is secreting, and whether he has to give more alkali or not.

I cannot help but feel that the next great step in the handling of ulcer cases, will be the preventive treatment, and when all medicine reaches this stage, it will have achieved its ideal.

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ANDROSCOGGIN

Andrews, S. L., Lewiston
 Barrell, D. A., Auburn
 Bolster, W. W., Lewiston
 Buker, E. B., Auburn
 Call, E. V., Lewiston
 Chaffers, W. H., Lewiston
 Chenery, F. L., Jr., Monmouth
 Cunningham, C. H., Auburn
 Cushman, B. G. W., Auburn
 Desaulniers, G. E., Portland
 Desaulniers, Lucy O'C., Lewiston
 Dumont, L. J., Lewiston
 Dupras, J. E., Lewiston
 Emmons, G. P., Lewiston
 Fahey, W. J., Lewiston
 Fitzmaurice, T. J., Lewiston
 Garcelon, H. W., Auburn
 Garcelon, W. S., Lewiston
 Gauvreau, H. L., Lewiston
 Gerrish, L. P., Lisbon Falls
 Giguere, E. N., Lewiston
 Gilbert, Irving W., East Auburn
 Goodrich, E. P., Lewiston
 Goodwin, R. A., Auburn
 Grant, Alton, Jr., Auburn
 Hanscom, O. E., Green
 Haskell, W. L., Lewiston
 Hewat, John, Lewiston
 Higgins, E. C., Lewiston
 Irish, H. L., Auburn
 Ladouceur, W. J., Lewiston
 Langelier, E. H., Lewiston
 Leathers, E. Auburn
 LeBel, F., Lewiston

Leonard, Christina, Philadelphia
 Marston, E. J., Auburn
 Miller, H. R., Auburn
 Morin, R. J., Lewiston
 Norton, C. E., Lewiston
 O'Connell, G. B., Lewiston
 Peaslee, C. C., Auburn
 Pelletier, J. J., Lewiston
 Pierce, E. F., Lewiston
 Plummer, A. W., Lisbon Falls
 Poulin, J. E., Lewiston
 Pratt, H. S., Livermore Falls
 Rand, G. H., Livermore Falls
 Randall, R. N., Lewiston
 Randlette, Charles, Sabattus
 Renwick, W. J., Auburn
 Roy, L. O., Lewiston
 Russell, B. W., Lewiston
 Russell, D. F. D., Leeds
 Sawyer, S. E., Lewiston
 Scannell, J. W., Lewiston
 Schneider, Geo. A., Lewiston
 Small, R. M., Auburn
 Smith, R. I., Boston
 Sprague, O. A., Turner
 Sprince, Henry, Lewiston
 Sturgis, John, Lewiston
 Sweatt, Linwood, New Gloucester
 Twaddle, G. W., Auburn
 Wakefield, F. S., Lewiston
 Webber, W. E., Lewiston
 Williams, C. E., Auburn
 Williams, J. A., Mechanic Falls
 Wiseman, R. J., Lewiston

AROOSTOOK

Albert, L. N., Van Buren
 Archambeau, J. T., Fort Kent
 Banton, L. G., Island Falls
 Bates, E. C., Houlton
 Bennett, F. E., Presque Isle
 Blossom, F. O., Caribou
 Boone, Sherman W., Presque Isle
 Boone, Storer W., Presque Isle
 Brown, M. J., Mars Hill
 Bundy, H. C., Mars Hill
 Carter, L. F., Presque Isle
 Chamberlain, W. G., Fort Fairfield
 Damon, A. H., Limestone
 Dickerson, T. S., Houlton
 Doble, E. H., Presque Isle
 Dobson, H. L., Presque Isle
 Donovan, J. A., Houlton
 Ebbett, P. L. B., Houlton
 Faucher, Francois J., Grand Isle
 Fulton, A. J., Blaine
 Gibson, W. B., Houlton
 Graves, R. A., Presque Isle
 Gregory, F. L., Caribou
 Hagerthy, A. B., Ashland

Hammond, H. H., Van Buren
 Hill, F. O., Monticello
 Huggard, L. H., Limestone
 Jackson, F. H., Houlton
 Kallock, H. F., Fort Fairfield
 Kilburn, Frank, Presque Isle
 LaPorte, Pio, Edmundston, N. B.
 MacDougal, W. A., Westfield
 MacWhinnie, H. C., Eaton
 Mann, F. W., Houlton
 Manuel, W. F., San Francisco
 Mitchell, F. W., Houlton
 Page, R. J., Fort Kent
 Potter, J. G., Houlton
 Sawyer, A. L., Fort Fairfield
 Sincock, W. E., Caribou
 Small, H. E., Fort Fairfield
 Tarbell, F. W., Smyrna Mills
 Therriault, L. S., Presque Isle
 Thomas, C. F., Jr., Caribou
 Upham, G. C., Caribou
 Upton, G. W., Sherman
 Ward, P. M., Houlton
 White, W. W., Houlton

CUMBERLAND

- Abbott, E. G., Portland
 Abbott, E. S., Bridgton
 Allen, J. H., Portland
 Alward, Mark, Portland
 Anderson, W. D., Portland
 Andrews, E. H., Brunswick
 Austin, L. K., Portland
 Baker, C. A., Portland
 Bates, G. F., Yarmouth
 Beach, S. J., Portland
 Bickmore, H. V., Portland
 Bishoffberger, J. M., Naples
 Black, R. P., Peaks Island
 Blaisdell, E. R., Portland
 Blake, J. P., Harrison
 Bodge, J. P., Portland
 Bowers, J. W., Portland
 Bradford, W. H., Portland
 Brock, H. H., Portland
 Brown, F. I., South Portland
 Brown, L. A., Portland
 Burrage, T. J., Portland
 Carmichael, F. E., Portland
 Caswell, C. O., Portland
 Center, I. A., Steep Falls
 Clark, F. E., Portland
 Clark, R. H., Great Chebeague
 Clarke, C. L., Portland
 Cleveland, H. H., Portland
 Clough, D. J., Portland
 Connellan, J. W., Portland
 Cousins, W. L., Portland
 Cragin, C. L., Portland
 Cummings, E. S., Portland
 Cummings, G. O., Portland
 Cumston, C. H., Brunswick
 Curtis, H. L., Portland
 Davis, Gilman, Portland
 Davis, H. E., Portland
 Davis, J. L., Portland
 Davis, P. W., Portland
 Derry, L. A., Portland
 Desaulniers, Geo. E., Portland
 Devereaux, F. G., Portland
 Dooley, F. M., Portland
 Dorsey, F. D., Portland
 Drake, E. H., Portland
 Drummond, J. B., Portland
 Dunn, B. F., Portland
 Dyer, H. L., Gorham, N. H.
 Dyson, W. W., Portland
 Ellingwood, G. A., Gray
 Elliott, G. M., Brunswick
 Emery, H. S., Portland
 Everett, H. J., Portland
 Fagone, Francis A., Portland
 Ferguson, F. A., Portland
 Ferren, F. L., Westbrook
 Fickett, J. P., Naples
 Files, E. W., Portland
 Fisher, S. E., Portland
 Fogg, C. E., Portland
 Folsom, E. B., Portland
 Foss, C. W. P., Brunswick
 Foster, B. B., Portland
 Foster, C. W., Portland
 Foster, T. A., Portland
 Freeman, W. E., Yarmouth
 Geer, G. I., Portland
 Gehring, E. W., Portland
 Gilbert, F. Y., Portland
 Goodhue, R. F., Portland
 Gordan, C. H., Portland
 Gould, A. L., Freeport
 Gray, J. E., Portland
 Hale, L. L., South Portland
 Hall, E. S., Westbrook
 Hamblen, Howard, Windham Center
 Hamel, J. R., Portland
 Haney, O. E., Portland
 Hanson, H. W., Cumberland Centre
 Harper, I. D., South Windham
 Haskell, A. W., Portland
 Hatch, Lucinda B., Portland
 Hebb, A. G., Bridgton
 Hersom, Jane L., Portland
 Hills, L. L., Westbrook
 Holt, E. E., Portland
 Holt, E. E., Jr., Portland
 Holt, William, Portland
 Howard, Harvey, Freeport
 Hunt, C. H., Portland
 Hunter, W. A., Harrison
 Jamieson, J. G., Portland
 Jewett, B. G., Portland
 Johnson, H. P., Portland
 Kimball, W. S. A., Portland
 Knight, C. S., Portland
 Kupelian, N. S., West Pownal
 Lagerson, V. E., Westbrook
 Lamb, F. W., Portland
 Lamb, H. W., Portland
 Lambert, H., Brunswick
 Leighton, A. P., Jr., Portland
 Lewis, Harriet M., Portland
 Little, A. H., Portland
 Lombard, H. A., Bridgton
 Lombard, L. S., South Portland
 Lombard, R. T., South Portland
 Lothrop, E. S., Portland
 Lougee, A. J., Fryeburg
 Mabry, I. E., Bridgton
 MacVane, E. F., Portland
 Mahoney, R. P., Portland
 Mannix, D. M., Portland
 Marshall, B. F., Westbrook
 Marshall, L. B., Portland
 McAleney, Jas. L., Portland
 McDonough, Edw. J., Portland
 Melnick, Jacob, Portland
 Milliken, H. E., Portland
 Milliken, J. S., Portland
 Mitchell, Alfred, Jr., Portland
 Moore, R. B., Portland
 Moran, William, Portland
 Moulton, A. W., Portland
 Moulton, Willis B., Portland
 Moulton, W. Bean, Portland
 Needleman, W. R., Portland
 Nichols, Estes, Portland
 Noyes, Elmon J., Lovell
 O'Donnell, E. E., Portland

O'Neill, Jas. B., Portland
 Oram, Julius C., South Portland
 O'Sullivan, T. J., Portland
 Parker, Chas. F., South Windham
 Patterson, H. J., Portland
 Pepper, J. L., South Portland
 Peters, Clinton N., Portland
 Phillips, G. W., Orr's Island
 Pingree, H. A., Portland
 Pletts, Robert C., Brunswick
 Poore, L. H., Crescent Lake
 Potter, J. L., Portland
 Powell, L. L., Portland
 Pudor, Gustav A., Portland
 Richardson, C. E., Brunswick
 Ridlon, B. D., Gorham
 Robinson, C. M., Portland
 Robinson, Edward F., Portland
 Robinson, W. W., Portland
 Rogers, J. K. P., South Portland
 Roy, Jos. G., Brunswick
 Sanborn, J. T., Waterboro
 Shanahan, W. H., Portland
 Shaw, Abner O., Portland
 Shedd, Geo. H., North Conway, N. H.
 Shedd, John Z., North Conway, N. H.
 Skillin, Waldo T., South Portland
 Small, H. W., Portland
 Small, Richard D., Portland
 Smith, Frank A., Gorham
 Smith, Owen P., Portland
 Sollima, E. L., Portland
 Somers, P. E., Portland
 Spalding, Jas. A., Portland
 Stetson, E. G. A., Brunswick
 Stevens, T. M., Portland

Sturgis, John I., New Gloucester
 Sturdivant, G. L., So. Portland
 Swasey, Geo. B., Portland
 Swift, H. M., Portland
 Sylvester, Allan W., Portland
 Sylvester, Chas. B., Portland
 Tabachnick, Harry, Portland
 Tetreau, Thomas, Portland
 Thaxter, Langdon T., Portland
 Thayer, Augustus S., Portland
 Thombs, S. B., Portland
 Thompson, P. P., Portland
 Tibbetts, G. A., Portland
 Tobie, Walter E., Portland
 Twitchell, H. F., Portland
 Vanamee, T. O., Portland
 Vosburgh, S. E., West Pownal
 Walsh, W. S., Providence, R. I.
 Warren, Mortimer, Portland
 Warren, S. P., Portland
 Webber, I. M., Portland
 Webber, M. C., Portland
 Webster, Fred P., Portland
 Weeks, DeForest, Portland
 Welch, F. J., Portland
 Wescott, C. P., Portland
 Wheat, F. E., Westbrook
 Whitney, H. R., Portland
 Williams, A. F., Portland
 Witham, A. N., Westbrook
 Woodman, D. N., Yarmouth
 Woodman, Geo. M., Westbrook
 Woolf, J. R., Portland
 Wyman, Thos. C., Portland
 Young, C. H., Portland

FRANKLIN

Bell, C. W., Strong
 Cartland, J. E., Kingfield
 Coburn, G. H., Rangeley
 Croteau, Thomas, Chisholm
 Currier, E. B., Phillips
 Floyd, A. E., New Sharon
 Makepeace, T. E., Farmington
 Moulton, John, Rangeley

Nichols, J. W., Farmington
 Perkins, J. W., Wilton
 Pratt, G. L., Farmington
 Ross, A. M., Farmington
 Thompson, Cecil F.
 Trefethen, W. J., Wilton
 White, V. O., East Dixfield
 York, A. I., Wilton

HANCOCK

Babcock, H. S., Castine
 Black, R. A., Sullivan
 Clark, R. W., Ellsworth
 Gage, I. B., Bucksport
 Gibbs, C. H., Ellsworth
 Grindle, J. L., Northeast Harbor
 Hagerthy, A. C., Ellsworth
 Hagerthy, Geo. R., Bar Harbor
 Herrick, F. S., Brooklin
 Higgins, R. G., Bar Harbor
 Hodgkins, Lewis, Ellsworth
 Holt, H. A., Winter Harbor
 Knowlton, C. C., Ellsworth
 Littlefield, O. A., Blue Hill

Morrison, A. B., Deer Isle
 Morrison, C. C., Bar Harbor
 Morrison, C. C., Jr., Bar Harbor
 Morrison, E. J., Bar Harbor
 Neal, G. A., Southwest Harbor
 Noyes, B. L., Stonington
 Parcher, A. H., Ellsworth
 Patten, J. H., Bar Harbor
 Phillips, J. D., Southwest Harbor
 Tower, E. M., Harmony
 Wakefield, R. W., Bar Harbor
 Wardwell, M. A., Penobscot
 Woodruff, H. L. D., Ellsworth

KENNEBEC

Abbott, H. W., Waterville
 Alexander, G. W., Gardiner
 Badger, F. H., Winthrop
 Bicknell, R. W., Winthrop
 Bisson, N., Waterville
 Boyer, E. W., Waterville
 Breard, J. A., Waterville
 Bunker, L. G., Waterville
 Campbell, G. R., Augusta
 Carter, F. R., Augusta
 Chenery, F. L., Monmouth
 Chenery, F. L., Jr., Monmouth
 Clason, S. O., Gardiner
 Cole, F. M., Gardiner
 Coombs, G. A., Augusta
 Coombs, G. H., Augusta
 Davian, A. R., Waterville
 Dyer, C. W., Augusta
 Fish, E. P., Waterville
 Frederick, H. J., Augusta
 Gingras, A. J., Augusta
 Goodrich, B. O., Waterville
 Goodrich, J. P., Waterville
 Goodrich, M. S., Waterville
 Goss, Ralph W., Litchfield
 Gousse, W. L., Fairfield
 Gwin, Alva, Atlanta, Ga.
 Hall, H. W., Augusta
 Harris, W. H., Augusta
 Hendee, W. W., North Vassalboro
 Herring, Leon D., Winthrop
 Hill, F. T., Waterville
 Hill, Howard F., Waterville
 Hill, J. F., Waterville
 Hurd, B. P., Waterville
 Jackson, E. H., Augusta
 Kagan, S. H., Augusta
 Knowlton, D. S., Fairfield
 Libby, A. B., Gardiner

Lippert, Frieda E., Hallowell
 Mann, L. L., Augusta
 McKay, R. L., Augusta
 McQuillan, A. H., Waterville
 Merrill, P. S., Waterville
 Milliken, H. A., Hallowell
 Newcomb, C. H., Clinton
 Nutting, J. D., Jr., Hallowell
 O'Connor, W. J., Augusta
 Odiorne, J. E., Cooper's Mills
 Parizo, H. L., Waterville
 Piper, J. O., Waterville
 Pitman, M. W. H., Riverdale on Hudson, N. Y.
 Poulin, J. E., Waterville
 Price, W. N., Gardiner
 Priest, M. A., Augusta
 Rancourt, C. G., Waterville
 Reynolds, R. L., Waterville
 Risley, E. H., Waterville
 Sanborn, W. B., Augusta
 Santosky, B. B., Jersey City, N. J.
 Shaw, A. A., Clinton
 Shaw, J. F., Fairfield
 Simmons, C. R., Oakland
 Simons, R. D., Gardiner
 Small, Morton M., Waterville
 Strout, A. W., Gardiner
 Strout, F. E., Gardiner
 Stubbs, R. H., Augusta
 Sturtevant, A. H., Augusta
 Totman, V. C., Oakland
 Towne, J. G., Waterville
 Turner, O. W., Augusta
 Tyson, F. C., Augusta
 Wheeler, F. E., Waterville
 Williams, E. P., Oakland
 Williams, H. E., Mt. Vernon

KNOX

Adams, F. B., Rockland
 Bartlett, F. O., Rockland
 Belknap, R. W., Damariscotta
 Brown, F. F., Rockland
 Campbell, F. G., Warren
 Coombs, Geo. H., Waldoboro
 Ellingwood, W. E., Rockland
 Fogg, Neil A., Rockland
 Foss, Alvin W., Rockland
 Frchock, H. W., Rockland
 Fuller, Abbott J., Pemaquid
 Green, A. F., Camden
 Hadley, L. W., Union
 Hall, W. D., Port Clyde
 Hart, W. F., Camden
 Heald, A. P., Thomaston
 Hill, J. C., Rockland

Hutchins, J. G., Camden
 Keller, B. H., Thomaston
 Laughlin, J. W., Togus
 Leach, Charles H., Tenants Harbor
 LeFurgy, W. G., Rockport
 Leijonborg, Frans, North Haven
 Lyford, W. F., Vinalhaven
 Mayo, D. B., Waldoboro
 North, Charles D., Rockland
 Parsons, G. E., Rockland
 Plumer, H. H., Union
 Sanborn, J. W., Waldoboro
 Spear, W. M., Rockland
 Steward, C. W., Rockport
 Tweedie, H. V., Rockland
 Wasgatt, C. E., Camden

OXFORD

Adams, Lester, Hebron
 Binford, H. J., Mexico
 Bisbee, C. M., Rumford
 Fitch, H. F., Brownfield
 Gagnon, J. L., Rumford

Gehring, J. G., Bethel
 Greene, J. A., Rumford
 Hammond, C. F., South Paris
 Hanlon, O. L., Ridlonville
 Haskell, W. B., Oxford

Hasty, W. L., Norway
 Howard, H. M., Rumford
 Hubbard, R. E., Waterford
 Kay, Edwin, W. Paris
 Littlefield, J. G., South Paris
 MacDougall, J. A., Rumford
 Marcou, L. B., Berlin, N. H.
 McCarty, E. M., Rumford
 Moody, H. A., Rumford
 Morse, F. W., Canton
 Nelson, Chelsey W., Norway
 Nile, J. Abbott, Rumford
 Noyes, H. L., Rumford
 Noyes, S. E., Rumford

Pease, W. M., Dixfield
 Pettingill, O. S., Middleton, Mass.
 Rowe, Wm. T., Rumford
 Somerville, W. S., Andover
 Stanwood, A. L., Chicopee Falls, Mass.
 Stanwood, H. W., Rumford
 Staples, Ivan W., Norway
 Stewart, D. M., South Paris
 Sturtevant, J. M., Dixfield
 Sturtevant, Jas. S., Dixfield
 Thibodeau, J. A., Rumford
 Tibbetts, R. R., Bethel
 Twaddle, W. B., Bethel
 Wight, I. H., Bethel

PENOBSCOT

Ames, F. B., Bangor
 Ball, H. W., Lincoln
 Bayard, C. H., Orono
 Berkwitz, Benjamin, Bangor
 Blanchard, L. H., Oakland, Cal.
 Bliss, R. V. N., Blue Hill
 Bradbury, A. J., Old Town
 Brown, Elmer E., Bangor
 Bryant, B. L., Bangor
 Bryant, Chas. S., Millinocket
 Burgess, Chas. H., Bangor
 Clement, J. D., Bangor
 Clough, H. T., Bangor
 Cook, N. R., Newport
 Cox, J. F., Bangor
 Dunham, Rand A., East Millinocket
 Emerson, O. R., Newport
 Emerson, W. M., Bangor
 Fellows, A. W., Bangor
 Fellows, Wm. E., Bangor
 Ford, L. H., Bangor
 Goodwin, H. M., Bangor
 Hall, W. C., Orono
 Hammond, W. J., Dexter
 Hedin, Carl J., Bangor
 Herlihy, E. L., Bangor
 Higgins, G. I., Newport
 Howes, L. M., Bangor
 Hunt, Barbara, Bangor
 Hunt, H. J., Bangor
 Hunt, W. L., Bangor
 Jackson, H. L., Old Town
 Johnson, H. W., Bangor
 Johnson, J. L., Bangor
 Knowlton, H. C., Hampden
 Latneau, A. P., Old Town
 Lethiecq, J. A., Brewer
 Lezberg, Joseph, Bangor
 Madden, M. C., Old Town
 Mansfield, B. M., Bangor
 Marquis, E. N. C., Old Town
 March, L. A., Bangor
 Marsh, S. N., West Enfield
 Mason, L. S., Bangor
 McCann, Daniel, Bangor
 McKay, H. G., Howland
 McNeil, H. D., Bangor
 McVety, J. J., Corinna
 Merrill, E. S., Bangor
 Milliken, H. J., Bangor
 Mitchell, R. L., Carmel
 Moulton, M. C., Bangor

O'Brien, C. R., Bangor
 Osgood, H. W., Bangor
 Peters, Wm. C., Bangor
 Philbrick, C. S., Bangor
 Popplestone, C. B., Bangor
 Porter, B. F., Caribou
 Preble, L. M., Old Town
 Purington, W. S., Bangor
 Redman, F. L., Corinna
 Redman, S. J., Dexter
 Roberts, H. T., Bradford
 Robinson, D. A., Bangor
 Robinson, H. L., Bangor
 Russell, D. W., Bangor
 Sampson, H. W., Bangor
 Sanger, E. B., Bangor
 Schriver, A. E., Brewer
 Scribner, H. C., Bangor
 Sheldon, D. W., Stetson
 Sherrard, F. D., Winn
 Silsby, S. L., Bangor
 Skofield, E. B., Corinth
 Small, A. E., Bangor
 Smith, A. K. P., Bangor
 Smith, L. H., Winterport
 Snow, H. E., Bucksport
 Starrett, J. F., Bangor
 Stone, G. H., Bangor
 Strout, A. C., Dexter
 Taylor, C. J., Bangor
 Thomas, C. M., Brewer
 Thomas, C. P., Brewer
 Thompson, H. E., Bangor
 Thompson, J. B., Bangor
 Tibbetts, G. B., Orrington
 Tomlinson, Edward, Orono
 Trickey, W. B., Pittsfield
 Varney, J. R., Old Town
 Walton, R. D., Frankfort
 Way, G. F., Jr., Lincoln
 Weatherbee, Geo. B., Springfield
 Webber, M. A., Pittsfield
 Weymouth, F. D., Brewer
 Whalen, H. E., Dexter
 Witte, M. E., Jr., Bangor
 Woodcock, Allan, Bangor
 Woodcock, G. M., Bangor
 Woods, J. B., Bangor
 Worth, H. D., Bangor
 Wright, L. G., Bangor
 Young, E. T., East Millinocket

PISCATAQUIS

Brown, M. O., Dover
 Carde, A. M., Milo
 Crosby, N. H., Milo
 Dore, G. E., Guilford
 Freeman, F. H., Pittsfield
 Hathaway, W. R. L., Milo
 MacDougal, W. E., Dover-Foxcroft

Marsh, R. H., Guilford
 Merrill, E. D., Dover-Foxcroft
 Nickerson, N. H., Greenville
 Pritham, F. J., Greenville Junc.
 Purington, W. A., Dover-Foxcroft
 Stanhope, A. H., Middleton, Mass.
 Stanhope, C. N., Dover-Foxcroft

SAGADAHOC

Bailey, B. A., Wiscasset
 Barker, B. F., Bath
 Day, W. S., Wiscasset
 Fox, Horace, Bath
 Fuller, E. M., Bath
 Gregory, G. A., Boothbay Harbor
 Irish, I. C., Bowdoinham
 Kershner, W. E., Bath

Lincoln, J. O., Bath
 Marston, E. J., Bath
 Morin, H. F., Bath
 Mullin, S. S., Bath
 Snipe, L. T., Bath
 Stilphen, H. L., Richmond
 Stott, A. A., Woolwich

SOMERSET

Ames, J. D., Readfield
 Boyce, J. Clifford, Solon
 Brown, R. C., Skowhegan
 Caza, O. J., Skowhegan
 Dascomb, L. A., Skowhegan
 De Veaux, Ormel F., Bingham
 Earle, F. E., Canaan
 Ellingwood, L. N., Athens
 Gilbert, P. E., Madison
 Humphreys, E. D., Jackman
 Hutchins, E. L., North New Portland
 Kinney, Burton O., Bingham
 Lord, M. E., Skowhegan
 Marston, H. E., North Anson
 Menges, O. A., Nat'l Military Home,
 Kansas

Milliken, W. S., Madison
 Moulton, C. A., Hartland
 Norris, L. F., Madison
 Pratt, E. F., North New Portland
 Robinson, F. J., Fairfield
 Sawyer, W. G., Madison
 Smith, H. W., Norridgewock
 Spear, H. S., North Anson
 Stinchfield, W. S., Skowhegan
 Tash, I. P., Fairfield
 Tozier, F. L., Fairfield
 Walters, E. H., Fairfield
 Walters, W. H., Fairfield
 Young, G. E., Skowhegan

WALDO

Blaisdell, S. C., Red Bank, N. J.
 Kilgore, A. E., Brooks
 Kilgore, H. L., Belfast
 Pattee, S. C., Belfast
 Small, F. C., Belfast
 Stevens, C. H., Belfast

Stevens, E. L., Belfast
 Truworthy, H. L., Unity
 Vickery, O. S., Belfast
 Watson, W. L., Monroe
 Wilson, E. A., Belfast

WASHINGTON

Armstrong, C. M., Robbinston
 Barker, N. B. T., Cedar Grove
 Bennett, D. F., Lubec
 Bennett, E. H., Lubec
 Best, H. H., Pembroke
 Bunker, W. H., Calais
 Burritt, G. L., Harrington
 Cleveland, W. F., Eastport
 Cook, C. E., Calais
 Crane, J. W., Dennysville
 Curtis, A. K., Danforth
 Dienststadt, W. M., St. Stephen, N. B.
 Dyas, I. E., Eastport
 Everett, H. S., St. Andrews, N. B.
 Gilbert, W. J., Calais
 Gray, W. E., Milltown, N. B.
 Harmon, A. R., Lubec

Hunter, Sarah L., Machias
 Hunter, W. B., Danforth
 Johnson, C. E., Princeton
 Johnson, H. O., Machias
 Larson, O. F., Machias
 Longfellow, J. W., Machias
 McDonald, J. A., East Machias
 Milliken, C. W., Jonesport
 Miner, W. N., Calais
 Mundie, P. J., Calais
 Murphy, J. L., Eastport
 Murray, A., Lord's Cove, Deer Isle, N. B.
 Shaw, F. L., Machias
 Stewart, Ralph C., Sangerville
 Webber, S. R., Calais
 White, E. A., Columbia Falls

YORK

Abbott, P. H., South Waterboro
 Allen, S. W., York and Boston
 Anderson, H. E., Milton Mills, N. H.
 Baker, W. H., West Buxton
 Barker, J. S., Kennebunk
 Bolduc, V. E., Sanford
 Bragdon, F. A., Springvale
 Carpenter, L. W., Limerick
 Cobb, S. A., Sanford
 Cook, E. C., York Village
 Cook, Edw. M., York Harbor
 D'Arche, A., Biddeford
 Davis, A. S., Springvale
 Dennett, C. G., W. Baldwin
 Dolloff, D. E., Biddeford
 Durgin, H. I., South Eliot
 Elliott, W. T., Berwick
 Gordon, J. W., Ogunquit
 Goss, R. A., Sanford
 Grant, H. D., Bath
 Haley, J. D., Saco
 Head, O. B., Sanford
 Hill, P. S., Saco
 Hurd, H. W., Biddeford
 Ilesley, H. P., Limington
 Jaques, E. D., South Berwick
 Jones, A. L., Old Orchard
 Kelley, W. H., Sanford
 Kendall, C. F., Augusta
 Kinghorn, C. W., Kittery
 Lamoreux, A. C., Sanford
 LaRochelle, J. R., Biddeford
 Levesque, G., Biddeford

Lightle, W. E., North Berwick
 Lord, F. C., Saco
 Love, G. R., Saco
 MacDonald, J. H., Kennebunk
 Maybury, R. L., Saco
 Moulton, B. M., Springvale
 Owen, H. A., Bar Mills
 Precourt, G. C., Biddeford
 Prescott, H. L., Kennebunkport
 Randall, J. A., Old Orchard
 Ross, F. A., South Berwick
 Ross, F. M., Kennebunk
 Ross, H. D., Sanford
 Sawyer, S. G., Cornish
 Schafer, J. W., Berwick
 Shapleigh, E. E., Kittery
 Small, F. E., Biddeford
 Smith, F. W., York Village
 Smith, W. W., Ogunquit
 Stewart, J. C., York Village
 Stickney, L. B., Saco
 Stimpson, A. J., Kennebunk
 Sullivan, W. E., Biddeford
 Syphers, L. R. S., Cornish
 Thompson, C. E., Saco
 Topham, J. J., South Berwick
 Underhill, C. S., Ogunquit
 Upham, R. C., Biddeford
 Weeks, A. W., Cornish
 Wentworth, B. F., Scarboro
 White, A. W., Sanford
 Wiley, A. G., Bar Mills
 Xaphes, C. J., Biddeford

PAYING DIRECT

Alden, E., Thomaston
 Allen, G. A., Center Lovell
 Barrows, H. C., Boothbay Harbor
 Blanchard, R. G., Dover, N. H.
 Dennett, C. A., West Baldwin

Dyer, H. L., Gorham, N. H.
 Higgins, Lelia, Wilton
 Larrabee, C. C., Prospect Harbor
 Rowe, G. D., Providence, R. I.
 Stevens, T. H., Boothbay Harbor

NECROLOGY

**Neils Christian Hansen,
 Portland, 1862-1927**

Son of a clergyman, Niels Nikkelson, and Elsie Christine Lund Hansen, Dr. Hansen was the second clergyman and physician combined in one personage in Maine to die in the current year. He died suddenly May 24, 1927, from heart disease. He was born in Denmark and brought to New Denmark, N. B., in 1875. He was educated at the University of New Brunswick and obtained his clerical degree at the Divinity School of

King's College, Nova Scotia. Ordained soon as a clergyman in the Episcopal Church, he officiated in two parishes in New Brunswick, and later on in Frederickton and Montreal, where he was also a precentor of the choir. Preaching and singing so strained his voice that he was compelled to retire from these professions. He then studied medicine at McGill, and settled in Portland, where he practiced four and twenty years.

Dr. Hansen was a man of retiring nature. He spoke occasionally in a curi-

ous voice at our medical meetings, read once in a great while a paper, but preferred to listen in, rather than to advance opinions or experiences of his own. He loved music, sang and played the piano finely, owned a collection of good music and a library of medical, musical and theological books, commingled.

He married, some years ago, Miss Zeralda Williams, of Gagetown, N. B., who died after a short period of married life. He is survived by two sisters, devoted to the memory of a genial and benevolent brother.

J. A. S.

**John Irving Sturgis,
Gray and New Gloucester, 1843-1927**

One of our oldest members, born December 24, 1843, and consequently well on to eighty-four years of age, Dr. Sturgis has passed to his reward. He was a valuable member of our Association and a reliable country doctor, with a handsome record in medical Maine. Born in White Rock, December 24, 1844, the son of John and Mary Purington Sturgis, he studied medicine first at the Bowdoin Medical School, served in the 12th Maine Infantry in the Civil War as a soldier and hospital steward, then came home and obtained his medical degree at Bowdoin in 1868. He settled first at Raymond, moved thence to Gray, and in 1875 to New Gloucester for the rest of his life. He practiced fifty-nine years, a record hard to equal in Maine.

Although living in a small country town, his influence extended for many miles around and was impressive upon the community. He won an excellent

record in the State Legislature, and was a physician of whom our Association is proud.

He was twice married, first to Miss Myra Hayden, of Raymond, and after her death he married her sister, Miss Jenny Hayden, who survives him.

The name of Sturgis stands high in Maine medicine and law, in the persons of our former President, Dr. Benjamin Franklin Sturgis, of Auburn, of Dr. John Sturgis, of the same city, of Associate Justice Guy Sturgis, of the Supreme Bench of Maine, and of our late comrade, John Irving Sturgis, to whose memory these few lines are dedicated.

J. A. S.

**Frank Marcellus Ross,
Kennebunk, 1851-1927**

It is not often that father and son cover a continuous practice of ninety-seven years in one town, as was the case with Dr. Frank Ross, our recent comrade, and of his father, Dr. Orren Ross, before him.

Dr. Frank Ross, the son of Orren and Elizabeth Holden Ross, was born in Kennebunk, January 4, 1851, and died in his chair suddenly, from heart disease, August 28, 1927. He had not seemed in his usual health during the previous year, but on the day of his death went the rounds of his morning calls as usual, and then in an instant was dead, leaving a fine record of successful town and country practice. He studied medicine in his father's office, learning much about practical medicine, and, after a course of lectures at Bowdoin he obtained his medical degree at Jefferson in 1874.

Dr. Ross was an active member of the

county medical society, attended regularly their meetings as well as those of the state society, was on friendly terms with his brethren in medicine, rarely, if ever, wrote a medical paper, but was always glad to say something concerning them when read by other members. His powers of diagnosis were very keen.

Personally, to Dr. Ross I acknowledge a long and unbroken friendship of more than fifty years, and to him I was indebted for a large number of patients kindly referred to me from time to time.

Dr. Ross was married to Miss Louisa Dane Morton, who died not long ago, and he is survived by two daughters with kindly memories of their father.

J. A. S.

**William Brown Haskell,
Oxford, 1860-1927**

Dr. Haskell had been ill for about two weeks, when he died suddenly June 17,

1927. He was a man of great diligence in medicine, keeping his medical literature up to date, and was also a broad-minded man of much culture. He enjoyed a large rural practice, but worked so hard that he shortened his life. He was born at Oxford, June 22, 1860, the son of Moses T. and Margaret Brown Haskell, educated at Hebron, studied at the Bowdoin Medical School, and obtained his degree at the medical school at Dartmouth in 1890. June 12, 1896, he married Miss Enid Martin, of Oxford, who, with two children, survives him. He was companionable with his medical neighbors, faithful to his duties as a physician, attended carefully to the bedside of his patients, advised them faithfully, did some minor surgery, and was kept intently posted on therapeutics and surgery. He never took any vacations, and is reported to have accumulated an unusually large property for a rural practitioner.

J. A. S.

COUNTY NEWS AND NOTES

Kennebec County Medical Association

The quarterly meeting of the Kennebec County Medical Association was held at the Central Maine Sanatorium, Fairfield, Thursday, September 29, 1927.

The meeting was called to order by the President, Dr. Frederick T. Hill, and the clinical program was as follows: "Pulmonary Tuberculosis—Case Demonstrations, X-Ray Fluoroscopy," Dr. John Shaw and assistants; "Laryngeal Tuberculosis," Dr. F. T. Hill; "Phlye-

tular Conjunctivitis (Pre-Tubercular)," Dr. H. F. Hill.

Dinner was served at 6.30 P. M.

The minutes of the last meeting were read and approved.

The business meeting followed immediately after, and Drs. Vincent T. Lathbury, of Augusta, John W. Christensen, of Togus, and Samuel C. Cates, of East Vassalboro, were elected to membership.

Application for membership from Elmer E. Ladd, of Readfield, was received and referred to the Board of Censors.

By motion of Dr. Herbert W. Hall, it was voted that the President appoint a committee of five to make arrangements for the meeting of the Maine Medical Association, which is to be held at Belgrade Lakes Hotel, June, 1928. The following committee were appointed: Drs. F. T. Hill, of Waterville, Richard H. Stubbs and F. R. Carter, of Augusta, A. Brooks Libby, of Gardiner, and H. E. Williams, of Mt. Vernon.

The business meeting was followed by a scientific session: Paper, "Pregnancy and Tuberculosis," Dr. A. H. McQuillan; Round Table Discussion on the "Correlation of X-Ray and Physical Findings in Pulmonary Tuberculosis," led by Dr. Bertram L. Bryant. The discussion was very instructive and was fully entered into by all the members and visitors present.

At the close of the meeting a rising vote of thanks was extended to Dr. Shaw

for his hospitality and courtesy in making the meeting possible.

The following members and guests were present: Drs. H. W. Hall, O. W. Turner and F. R. Carter, of Augusta; A. B. Libby, of Gardiner; F. T. Hill, J. Fred Hill, L. G. Bunker, P. S. Merrill, B. P. Hurd, V. C. Totman, J. O. Piper, Howard F. Hill, A. H. McQuillan, J. E. Poulin, H. W. Abbott, J. P. Goodrich and Arthur Dayreau, of Waterville; John Shaw, F. L. Tozier, William R. Tymmes, of Fairfield; E. P. Williams, of Oakland; C. H. Newcomb, of Clinton; George E. Young, of Skowhegan; Elmer E. Ladd, of Readfield; C. A. Moulton, of Hartland; L. F. Norris and W. S. Milliken, of Madison; Forrest B. Ames and Bertram L. Bryant, of Bangor; H. E. Williams, of Mt. Vernon.

Respectfully submitted,

FREDERICK R. CARTER, M. D.,

Secretary.

Malnutrition, Marasmus, Infantile Atrophy, Athrepsia

In an endeavor to improve conditions that may be properly grouped under the above-mentioned terms, the first thought of the attending physician is an immediate gain in weight, and the second thought is to so arrange the diet that this initial gain will be sustained and progressive gain be established. Every few ounces gained means progress not only in the upward swing of the weight curve, but in digestive capacity in thus clearing the way for an increasing intake of food material. As a starting point to carry out this entirely rational idea, the following formula is suggested:

Mellin's Food	8 level tablespoonfuls
Skimmed Milk	9 fluidounces
Water	15 ounces

This mixture furnishes over 56 grams of carbohydrates in a form readily assimilated and thus quickly available for creating and sustaining heat and energy. The mixture supplies over 15 grams of proteins for depleted tissues and new growth, together with over 4 grams of inorganic elements which are necessary in all metabolic processes. These food elements are to be increased in quantity and in amount of intake as rapidly as continued improvement is shown and ability to take additional nourishment is indicated. Suggestions for this readjustment are set forth in a clear manner in a pamphlet devoted exclusively to the subject, which will be sent to physicians upon their request.

Continued repetition of highly successful and oftentimes remarkable results from the application of this procedure justifies its universal recognition.

Mellin's Food Company,

177 State Street,

Boston, Mass.

THE JOURNAL

OF THE

Maine Medical Association

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*CLASSIFICATION OF NEPHRITIS

By GARFIELD G. DUNCAN, M. D., Philadelphia

Deaths from nephritis in its various forms, arterial hypertension with its sequelae and heart disease aggregate far in excess of any other group of allied diseases. This fact is a stimulus to investigation for a more thorough understanding of the different phenomena entailed. Public interest is gradually being aroused, and research in this vast field of pathology is being actively encouraged. It is the aim, however, in this paper to review, first, the standard and accepted classification of the medical kidney, heart and vascular disease, inasmuch as they form a part of the cardio-renal-vascular complex; second, to show that conditions hitherto considered fatally progressive can in many instances be benefited amounting to symptomatic relief, control or actual retrogressive changes, as the case may be.

Careful study, classification and treatment of the individual case from the few weeks of the acute nephritis to the end in uremia (which may be delayed as long as twenty years), the focal nephritis with recurrent hematuria to the possible diffuse nephritis from the same cause, the incipient essential hypertension which, if neglected, after a period of years ends in a fatal accident,

would seem to confirm the belief that these disorders are progressive. We now know that this need not be in many instances.

It should be a simple matter to classify any case of nephritis, if we see the onset, study every feature, and keep a "follow up" record for a period of months. For purposes of prognosis, teaching, and of less importance, treatment, every patient should be classified. Difficulties arise when a patient is first seen with hematuria and albuminuria only, with no history of the acute attack. The history and date of an acute attack would make it fairly clear whether we are dealing with a remaining focal nephritis, subacute, subchronic, chronic diffuse glomerulonephritis, or renal arteriosclerosis.

Vollhard and Fahr's classification of nephritis, or Bright's Disease, into the two large groups, glomerulonephritis and tubular degenerative nephritis, has afforded a basis for study and has simplified the question of kidney disease for the student. Allen's classification, into the nitrogen or chloride retention, or both, suffices for accurate treatment. Muller, Munk, Vollhard and Fahr, and, more recently, Epstein, with many

* Read before the annual meeting of the Maine Medical Association at Portland, June, 1927.

others, have reported cases of tubular degeneration popularly known as nephrosis, a name given to the condition in 1905 by Muller. A mixture of these two great groups, with one or the other predominating, is the usual finding. Glomerular involvement in every instance should presuppose secondary tubular change, but not necessarily vice versa.

In the glomerulonephritis we are dealing with a focal or diffuse pathology. Focal nephritis presents itself in two forms, each being distinct etiologically. The embolic form is practically always a complication of subacute bacterial endocarditis, due to the streptococcus viridans. Baehr has demonstrated minute emboli with the secondary tiny infarcts in the kidney. The affected glomeruli are confined to those where the emboli become implanted. The chemotatic power of the organism is slight. There is no suppuration or leucocytic infiltration. Kidney function is not impaired. The course coincides with that of the disease which it complicates. The only sign may be hematuria with some albumin and casts. These found in the presence of endocarditis make the diagnosis almost certain.

The non-embolic focal nephritis, that most commonly encountered, is usually found complicating a streptococci infection, particularly scarlet fever and the more common throat infections. Volhard and Munk have recovered streptococci from the urine. Local inflammatory reaction, with injury to the glomerular epithelium from excretion of the organism or toxin, is the theory advanced. Only a few loops of a glomerulus are involved and kidney function, as a rule, is not impaired. The onset in the case of scarlet fever is during the first week. This is to be kept distinct

from the diffuse glomerulonephritis, which does not make its appearance until about three weeks after the onset. Non-embolic focal nephritis is recognized by the sudden appearance of blood, granular and hyaline casts in the urine. Its course is benign and is dependent on the disease it complicates. Foci of infection may cause frequent recurrences for months and years until removed.

Diffuse glomerulonephritis always begins with an acute attack. It may end in immediate and complete recovery, or there may be a persistence of a non-embolic focal nephritis, a subacute, subchronic or chronic diffuse glomerulonephritis.

Infection, intoxication, exposure to cold, or any combination of these may precede the onset. Elwyn and Horne lay particular emphasis on exposure to cold as an etiological factor. Unlike the non-embolic focal nephritis, in which case streptococci are found in the urine, there are scarcely ever any organisms isolated from the kidney or urine. The toxin alone may cause the local injury which initiates the onset of the symptoms. Volhard believes that, owing to the susceptibility of kidney vessels to vasomotor disturbances, there is a spasm of the afferent and pre-afferent vessels, with the result that the blood does not circulate through the glomeruli, ischemia thus produced accounting for the glomerular and tubular changes. All glomeruli of both kidneys are involved. This constriction is probably general throughout the arterial system. It is demonstrable in the narrowing of the retinal vessels and increase of the blood pressure. Re-established circulation through the glomeruli within two or three weeks results in a complete cure. Over a longer time organic change takes place with proliferation of the structural

elements of the arterial wall. These are not retrogressive.

Clinically, acute diffuse nephritis is recognized by the history of an acute infection or exposure to cold previous to the onset of hematuria, oliguria with high specific gravity, granular and hyaline casts, albuminuria, increase in blood pressure—usually not above 170 if it is the first attack—narrowing of the retinal vessels and œdema existing in proportion to the secondary tubular involvement. Non-protein nitrogen retention with a mild anemia ensue. Symptomatically, headache, nausea, vomiting and pain in the region of the kidneys are the outstanding features.

The subacute diffuse glomerulonephritis is ushered in between four and eight weeks after the onset of the acute attack if the arterial spasm has been maintained and the glomerular circulation prevented. Organic narrowing of the afferent and pre-afferent vessels has resulted with secondary crescent formation, increase of cellular elements and hyalinization of the glomeruli.

Clinically, we find a subnormal urine volume with a specific gravity tending toward low figures, albuminuria with casts, and less prominent, hematuria. Edema is a common feature, but in this case whether it is nephrotic or cardiac in origin is sometimes difficult to decide. In contra-distinction to the acute phase, the blood pressure is higher and the left ventricle is hypertrophied, with beginning decompensation. There is a progressive increase in the non-protein nitrogen retention, anemia is more marked and there are retinal hemorrhages, retinal exudate, with œdema and choking of the optic discs. The process terminates in a fatal uremia in two or three months.

Subchronic diffuse glomerulonephritis is more gradual. There is a period

of improvement after the acute attack, accounted for by the re-establishment of blood flow through some of the glomeruli. Functional relief is not possible, however, and there is further gradual loss of glomeruli. The process is mostly intracapillary.

Albuminuria, casts, polyuria and low specific gravity are constant. The blood pressure gradually increases to higher levels than in the acute and subacute types. Anemia becomes more marked, with or without œdema. A gradual increase of nitrogen retention, with development of the typical so-called albuminuric retinitis, with radiating lines of exudate about the macula, is characteristic. True uremia results, and very often a terminal pericarditis forms part of the picture before the end, which occurs from four months to two years after the onset of the acute phase.

Apparent recovery from acute diffuse nephritis, followed by a persistent albuminuria, occasional hematuria and œdema, with some increase in blood pressure at these times, indicates a chronic diffuse glomerulonephritis. With loss of glomeruli and replacement of the tubules by connective tissue there is a gradual increase in the systolic and diastolic pressures, with further evidences of loss of variability of kidney function, as seen in polyuria, nocturia and a low specific gravity. There is a gradual change from relative to absolute insufficiency ending in uremia, apoplexy, or myocardial decompensation, from two to twenty-five years after the initial attack.

The second and smaller group, the degenerative tubular nephritis or nephrosis, is characterized clinically by its insidious onset, chronic course, œdema, albuminuria, oliguria, decrease of albumin protein in the blood, increase in the globulin, but with an absolute decrease

of the total protein. The blood cholesterol is increased. Of note is the absence of any renal insufficiency, any increase of blood pressure or cardiac hypertrophy. If any of these are present, we are dealing with a mixture of glomerulonephritis and nephrosis.

Pathologically, the process is a degenerative one, affecting chiefly the tubules, but lipoid degeneration is found in the glomeruli as well. The regulatory mechanism of the walls of the capillaries and the rate of oxidative and synthetic processes in the cells are apparently disturbed. Whether or not hypothyroidism plays a part is questionable.

Finally, we have arterial hypertension subdivided into benign hypertension without renal insufficiency, and a malignant sclerosis with renal insufficiency. The former may at first be demonstrated by the increase of blood pressure only. Sir Clifford Allbutt has defined the extreme figure for a normal blood pressure: Systolic, 140 (in spite of age); diastolic, 90. Levels above these are pathognomonic of abnormal states of the cardiovascular system, and should be dealt with accordingly. The progressive tendency of a neglected hypertension is well known, and while the patient may be enjoying life, the physician alone knows that if no intercurrent accident intervenes, eventually before the normal span of life has elapsed, angina, coronary thrombosis, malignant sclerosis, apoplexy or myocardial failure will result. A prophecy as to the particular outcome in the individual case can be based with some probability on the familial tendency. With careful history taking, we are more and more struck with the reality of predisposition by heredity. It is the exception rather than the rule to find that no immediate relative of the patient has died from or

is suffering from ailments at once referable to the cardiovascular system. Many cases, especially of the essential hypertension (hyperpiesis) group, go unexplained outside of the belief that pathology remains from antecedent infection or intoxication. Until more is decided in regard to the etiological factor or factors, treatment must be directed along prophylactic lines, preventing infection and intoxication, and controlling the hypertension with the best available means when once it has become established.

Owing to lack of symptoms, months and years may elapse before an existing hypertension is discovered. If routine or insurance examination have not been made the patient eventually finds his or her way to the physician, complaining of nervousness, periods of depression, vertigo, headache, feeling of fullness in the cranium, tinnitus, impaired vision (dimness, spots or total blindness), temporal thumping, occasional "clutching at the throat" sensation, cardiac palpitation and swelling of the legs.

The left ventricle has been subject to prolonged functional overstrain. Hypertrophy, with a corresponding loss of reserve, has ensued. Changes in the walls of the vessels to the myocardium facilitate the progressiveness of the degenerative process. As the untreated hypertension increases, with the appearance and persistence of the above-mentioned symptoms, a limit is reached where the myocardial reserve is exhausted. At this point, we may have such extreme pressures as 290 systolic and 160 diastolic, a value not infrequently met with. To ascertain the myocardial reserve we can study the systolic pressure of such a case upon slight exertion. If the pressure increases the limit has not been reached, but more commonly the blood pressure

falls, signifying a defeated myocardium. Thus, with the transition from the uncomplicated arterial hypertension to one with myocardial insufficiency, we have a lowering of the systolic pressure, an approximation of the systolic and diastolic pressures, or, in other words, a smaller "differential pressure," so-called by Allbutt in preference to the misleading term "pulse pressure."

With the defeat of the left ventricle, the symptoms change. The severe headaches become less as the blood pressure falls, the sense of fullness in the whole cranium disappears, nervousness is less marked, vertigo may be lessened or increased, and the temporal thumping is abolished. The "new patient," so to speak, provides the clinical entity produced by prolonged overstrain of the myocardium, with complete utilization of the reserve force. The propelling force is insufficient; a slowing of the arterial circulation results; peripheral manifestations, such as hepatic and pulmonary congestion, appear; the veins become engorged; œdema is prominent. In such a case, unless a complete anamnesis is taken, the preceding hypertension might be readily overlooked. This very fact partly explains why hypertension as a cause of myocardial insufficiency has received less attention than valvular, toxic and infectious causes.

Malignant sclerosis presents more advanced vessel wall damage with advanced kidney damage. Connective tissue replaces destroyed epithelium and accounts for the later contraction. Fahr, Volhard and Herxheimer believe this malignant progressive disorder is one outcome of the benign group ascribing the damage to the action of specific vascular toxins. With gradual loss of reserve kidney power, the symptoms of an increasing renal insufficiency similar to those in the later stages of chronic dif-

fuse glomerulonephritis, predominate. The picture of malignant arteriosclerosis is then that of an essential hypertension to begin with and chronic diffuse glomerulonephritis in the end.

Treatment may be divided under three headings: dietetic, supplementary measures, and the education of the patient. By judicious use of available knowledge of the advantages of strict diet, functional overstrain can be reduced to a minimum or completely relieved. Pharmaceutical preparations may in some instances facilitate progress, but this advantage is confined almost entirely to the œdema group. Education of the patient or of the patient's relative should consist of a clear understanding of the meaning and preparation of the particular diet considered specific for the individual, and secondly, how to collect a 24-hour specimen of urine, so that from time to time a check-up on the urine findings could be made.

It has been satisfactorily proven by Volhard, Mosenthal and Short, Strouse and Kelman, as well as in Dr. Allen's work, that protein restriction below 80-100 grams is unnecessary in absence of any urea retention. When urea retention exists, however, a protein-free diet may be permitted, or may be desirable for a few days, increasing thereafter to at least 30 grams. Protein metabolism is best spared by a high carbohydrate diet, with sufficient total calories to maintain nutrition. In the uncomplicated hypertension, protein restriction does not offer any benefit. Fat restriction in treatment of lipoid nephrosis is advisable.

Salt-free diet should be employed in event of any kidney damage, but particularly in the presence of arterial hypertension with or without œdema. Some caution is necessary in prescribing a strictly salt-free diet, in case of urea

retention without œdema. Occasionally uremia is precipitated by concentration of the blood. This difficulty can be overcome by allowing probably 2 to 3 grams of salt daily until the urea content is lowered through the agency of a low protein intake.

To define a salt-free diet from which the best results can be expected, it is a diet or diets sufficiently low in sodium chloride to cause a decrease in the 24-hour chloride output in the urine to 0.5 grams or below in the patient free from œdema. Results may be immediate or delayed for weeks after the institution and maintenance of the strict diet. The difference between a salt-poor and so-called salt-free diet explains the failure to get the chloride output sufficiently low, the lack of results obtained with the more lax diet, and the skepticism with which the diet is viewed by those who are satisfied with the salt-poor diet or who are unable to obtain the strict diet.

Superlative results may be expected if all foods taken contain only the lowest chloride content. This will call for exclusion of salt from table and cooking, sodium bicarbonate in baking, milk, salted butter, and any baker's products (including bread), canned vegetables, soups, most prepared cereals, etc. On the other hand, fruit, home-prepared cereals and bread, cream, salt-free butter, meat, eggs and fresh vegetables provide sufficient available supply to allow variety.

The supplementary measures may be confined to rest, medicinal and physical measures. Rest is generally necessary only when the patient feels unfit. In any event, it should be absolute in acute nephritis and during the early treatment of myocardial insufficiency following hypertension. A detailed account of the treatment of the latter has re-

cently been published from the Physi-
atric Institute.

The use of medicines are for the great part limited to treatment of symptoms. Sedatives may be used. Chloral hydrate is much more effective than morphine when given by rectum at the onset of a convulsion. Nitrites, bromides, iodides, except in the event of specific disease, organ extracts and luminal are only temporary help, if any benefit at all is derived. In the event of a nephrotic œdema, or an œdema from myocardial insufficiency due to prolonged hypertension without renal insufficiency, diuretics facilitate the treatment. Of these tincture of digitalis, caffeine, sodium benzoate, theocin, theophyllin may be helpful. The stronger diuretics and of excellent value under ideal conditions are euphyllin, novasurol and salyrgan. Intravenous use of hypertonic glucose is of definite value in coping with œdema of the brain.

Among other measures employed venesection may be helpful in acute glomerulonephritis, angiospasm, acute pulmonary congestion and œdema of the brain. Unless it be for some such complication, a venesection should not be resorted to. Hyperpnetic patients have normal blood volumes, and withdrawal of blood should be adopted when temporary relief only is in view. Lumbar puncture has a distinct place for the relief of uremic convulsions. High frequency treatments seem to have little more than a temporary effect in any case of this group.

Incision of skin or insertion of tubes for relief of œdema should not be employed. A strict diet will accomplish more and without the danger of infection so great in water-bagged tissues.

Changes of climate, various baths, mechanical treatments, colonic irrigations and mineral waters may appeal to

the patient, but offer no more than proper hygienic living.

On the basis of seven years' employment of the dietary principles as outlined at the Physiatrie Institute, we are in a position to conclude that acute nephritis, when accurately treated, is followed less often by complications, that subacute diffuse nephritis is no longer necessarily fatal in two to three months or the subchronic type in two years, that there is a mitigation of symp-

·toms and control of the chronic diffuse glomerulonephritis for an indefinite time, that arterial hypertension in the majority of instances can be controlled and that advanced myocardial insufficiency following hypertension can be tremendously benefited after all standard measures have failed. On the other hand, when nitrogen retention persists after a prolonged strict diet, the reduction of functional elements are inconsistent with life.

PHYSICAL THERAPY IN DISEASES OF THE SKIN

By DR. CHARLES E. COOK, JR., Calais, Maine.

The pathology, etiology and classification of skin disease is covered with detail and thoroughness in the many textbooks. It is in suggestions for effective treatment that books have been diffuse and unsatisfactory. Doctors who make a routine practice of getting Wassermann tests in all but obvious cases, who are not afraid to use arsphenamine in the face of a negative report and to take advantage of the various physical agents now available, will get results in dermatology that will be prompt, certain and final.

Of the physical agents, actinotherapy, X-ray and surgical diathermy are most important. Actinotherapy is the final answer to a multitude of skin lesions which have had no practical and effective treatment hitherto. Almost every day I find some new lesion or skin blemish that melts away before either the air-cooled or water-cooled technique. X-ray is more useful and over wider range than the average doctor is aware. In accessible lesions, as in the skin and subcutaneous tissues, its effect is almost identical with radium and far preferable. As is well said by Oliver, of Boston, "The changes in the skin induced

by radium seem to go on forever." I have seen some abominably scarred faces here at the Calais Hospital which were not only disfigured by the scars, but were not helped by the radium. In skin diseases there is no depth of tissue to penetrate, the area under treatment is variable and there is seldom reason for intense or prolonged radiation. We do not need a high voltage, deep therapy apparatus for dermatological use or for the treatment of glands lying superficially. It is not ordinarily necessary to use more than six-inch back up for skin diseases. Where malignancy is a factor or suspected, we use this capacity for prophylactic or definitive treatment. X-ray is preferable to radium, because we can apply it to a larger surface more readily, and it is also easy to regulate the dose toward a definite end. The ionizing dose of Sampson deserves the attention he asks for it. He well knows his reasons. Latterly, I am using surgical diathermy more and more. It is superior to surgery in superficial neoplasms, because we can head off metastasis by sealing the efferent vessels, and equally important, it is not nearly so painful, either actually or to the imagi-

nation of the patient, who welcomes any detour around the knife and the general anesthetic. For benign growths and blemishes it is ideal for the same reasons.

The following paragraphs and cuts describe and illustrate a few of my cases treated by these physical agents. I will have to be forgiven for showing a disproportionate number of X-ray cases. They happen to be the ones of which I have photographs available for reproduction.

EPITHELIOMA

This group of skin lesions calls for most conscientious and careful attention. A responsible doctor needs to be alert to the fact that apparently benign skin blemishes, such as moles or papillomata, particularly about the face, are potential sources of danger after middle age. Patients themselves are becoming alert, often disproportionately so, because of the increasing lay literature on the subject. It requires an appreciation of consequences as well as honesty of purpose, to be a competent adviser. It is easier to manage these cases early than it is to persuade them to take definite action later. Such is human nature.

From a histological standpoint, epithelioma are of two kinds—the basal cell, the earlier stages and milder cases of which are sometimes called rodent ulcer, and the squamous or prickle cell type. There is also a transitional type occurring especially about the eyes.

In all cases the lesions are very vascular. They bleed freely, and after ulceration takes place—that is, when the skin over them breaks down—the discharge is a viscid scant secretion which dries into yellowish crusts, which have a tendency to pile up forming elevated scabs, becom-

ing darker with age and sometimes very firm in character. Pain is slight as long as confined to the skin, but as deeper structures are involved it sometimes becomes intense. The basal cell carcinoma or rodent ulcer develops from the columnar layer of skin and occurs on the temple, scalp, ear and nose, and very often at the eyelid margins about the outer canthus. Squamous or prickle cell cancer is more malignant and springs from squamous epithelium, mostly about the lower lip margin, giving early metastasis into the anterior cervical glands and from there into the chest. Roughly speaking, epithelioma occurring above a line from the corner of the mouth to the pinna of the ear are basalar in type. Those about the lower lip should always be considered of the squamous and malignant type. Basal cell epithelioma destroys tissue early and metastasizes late. Unless sealed by crusts the latter become infected by pyogenic organisms and form foul ulcers. I look for very definite results in these cases, and give the patient an expectation of such within a comparatively short time.

The water-cooled lamp soon cleans up the mixed infection and hastens proliferation of healthy cells at the margins. There is very little sear even when destruction of tissue has been quite extensive. This is supplementary to the routine treatment by X-ray. In the squamous cell type the patients are seldom seen before some metastasis has taken place. In these instances, surgery, or what is infinitely better, surgical diathermy, should be used for immediate extirpation, followed by broad radiation with the X-ray. I have had a number of cases lately who, having gone the rounds of incompetents, are

now hopeless and I am sensitive about them. These are tragedies. There are far too many such. There is some excuse for late diagnosis and fatal delay in cancer of the pylorus or colon or pancreas, but where can there be excuse, outside the patient's own stubbornness, for failing to bring to proper treatment a condition in plain view on an uncovered surface of the body known to be prone to this type of growth?

Cuts I and II show basal cell epithe-

a remarkably quick recovery and remained entirely well until her death from intercurrent disease last spring.

Cuts V and VI, basal cell epithelioma, candy worker, age 57, gave ready response and has remained well three years.

Cuts VII and VIII, basal cell epithelioma under left eye, woman 58, slightly stubborn to treatment, has remained well four years.



I and II.—Basal cell epithelioma. Cleared up four years ago. Cut number II made within a few weeks. Has remained well except for slight breaking down during the past summer.

lioma, with deep ulceration about outer canthus of right eye. This case was of about ten years' standing, and was entirely cleaned up by eight applications of X-ray, four days apart. This was three years ago, and a slight recurrence this summer cleaned up under two fifteen-minute exposures.

Cuts III and IV, basal cell epithelioma in front of left ear, very firm, hard crust, two or three years' standing, made

SEBORRHOIC DERMATITIS

Pusey says: "Seborrheic dermatitis is a disease of the skin probably due to a specific organism, and is characterized by the occurrence of patches of sub-acute dermatitis, which are associated with scaling and hyper-secretion of fat." It is not a form of eczema. In its typical development there is a well-defined inflammatory process, with a production of light to dark red infiltrated patches.



III and IV.



V and VI.

III, IV, V and VI.—Basal cell epithelioma. These two cases have remained well for several years.

This disease, in my experience, is rather common. I have had several of them under treatment during the past year.

Cuts IX and X represent a well-defined case in a young man of 25. Although the cuts show the scalp only, the



VII and VIII.—Basal cell epithelioma. No recurrence in four years.



IX and X.—Seborrheic Dermatitis. Cured by air-cooled actinotherapy.

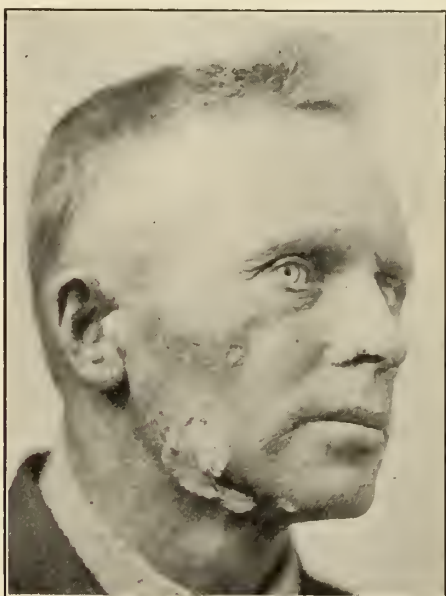
disease existed on all hairy parts of the body. As usual, it began and was most extensive on the scalp. There was much destruction of hair and the treatment

consisted of closely clipping hairy areas and the application of six severely reddening doses of air-cooled actinotherapy at intervals determined by the conse-

quent scaling. Recovery, which was complete, has been permanent. This case is illustrative of several cases of mine of this type, one of which, a much more severe one, I noted in a previous article in this JOURNAL (September, 1926).

LUPUS ERYTHEMATOSIS AND LUPUS VULGARIS.

Lupus vulgaris is tuberculosis of the skin. It is distinct from lupus erythem-



XI.—Lupus Erythematosus. This case had been under treatment for about three months before photograph was made. Lesions now practically inactive. Scarring will be permanent.

atosis, which is a trophic disturbance having its origin in some depravity of function of the trophic nerve fibres. Both diseases, starting from a primary center, tend to spread peripherally and mostly on one margin. The ulceration of lupus vulgaris is deeper than that of lupus erythematosus, the latter being more superficial and tending to be bilateral in distribution with predilection

for the nose. The differential diagnosis should not be difficult. Lupus vulgaris is a rare disease amongst us, whereas lupus erythematosus is a rather common one, though textbooks assert the contrary. Textbooks sometimes lack a sense of proportion. Both diseases are extremely chronic, extending over many years. I have had a good many cases, but, owing to lack of space, can present here only a single cut (No. XI) of one case, shown to illustrate the characteristics of the disease, particularly the so-called butterfly lesion on the nose. This man had suffered greatly from the injudicious application of radium. The picture was made after the case had been under treatment for a considerable time, and the lesions were formerly much more extensive and painful. The patches shown have been inactive for several months. Of course the scars will be permanent.

PSORIASIS, ACNE VULGARIS AND ACNE ROSACEA

I am grouping these diseases together because I believe they all have their roots in endocrinology. According to Plank, who is a close observer and thoroughly modern in opinion, in psoriasis there is a change in blood chemistry which, in turn, affects the chemistry of the epithelial cells of the skin. Its course is chronic and stubborn, showing a persistent disposition to return after any known treatment, but it can be kept in abeyance over long periods by actinotherapy, both general and local.

Common acne, as every one knows, is a common disease of boys and young men, and to a less extent of girls, and appears to have some connection with the endocrinology of puberty, although it is a frequent subacute infection of the

sebaceous glands independently of this connection. It is unusual to see common acne beyond middle age. Text-books make a number of distinctions as to type, which are not of practical importance. The ready response of this disease to X-ray is well known to both

ment and results are like those for common acne, though, in addition, heavy doses of water-cooled actinotherapy with pressure are very efficient. I know of no condition where the physical modalities give such brilliant results and excite more gratitude from the patient.



XII and XIII.—Acne Rosacea and pustula acne. This case treated by combination of X-ray and water-cooled actinotherapy with pressure.

doctors and laity. Actinotherapy with the air-cooled lamp is a close second. Large pustules should be incised before using the latter.

Acne rosacea is also an hypertrophy and infection of the sebaceous glands of the nose and near-by cheek, which become so badly distended as to give the nose a bulbous appearance, together with a chronic hyperemia and distention of the superficial capillaries producing the characteristic red or purple appearance. It is very apt to be pustular, and during treatment large pustules must be opened by slight incisions. The treat-

Cuts XII and XIII show a case of acne rosacea of six or seven years' duration. Black and white pictures, of course, cannot show the contrast in color between the deep livid red of this woman's nose and cheeks present when the first of these photographs was made and the almost normal color and texture of the skin existing when the last one was made, a few days ago. This case has been highly pustular in type, some of the pustules containing a half dram or more of pus. This woman is a very grateful patient.

REMOVAL OF SUPERFLUOUS HAIR

Women frequently apply for removal of superfluous hair by X-ray. I only mention it to state that it is a fool stunt. I have been over persuaded to try it twice and have repented both times. Time spent in repentance is a total loss.

CHRONIC ULCERS

A chronic ulcer is a persistent circumscribed breaking down of the skin with pyogenic infection. In the order of frequency, we have to consider syphilis, trauma with sepsis, and varicose veins. Ulcers from the first cause will usually clear up promptly under a few doses of arsphenamine, which, indeed, should be used in all cases of chronic ulcer, partly because it is a therapeutic test and also because it affects favorably conditions other than specific ones. This is a good illustration for my plea for the routine use of arsphenamine in chronic skin diseases. It is analagous to a precipitating reagent in analytical chemistry. When you have thrown out syphilis, the diagnostic problem is simplified. For the cases of trauma with sepsis I use closely screened actinotherapy and a dressing wet with one of the chlorine bearing solutions. The ulcers resulting from varicose veins are stubborn indeed to ordinary treatment, but the mixed infection and indurative eczema always complicating them can usually be cleaned up by actinotherapy. I have had some brilliant results of late by alternating this with medical diathermy, using the through and through method in preference to the cuff method for application of electrodes. This treatment has cleaned up several cases of several years' standing. Persistence with these phys-

ical agents, together with the wholehearted co-operation of the patient, will clean up most of them. I often shield the surrounding area and apply the water-cooled lamp directly to the ulcer and follow with the air-cooled lamp. Crusts from dried secretions and necrotic fascia must absolutely be cleared away at each treatment. This is easily done after the diathermic treatment and before application of the quartz light, because of the softening up of this material by the heat and moisture. Salesmen are in the habit of telling doctors that the matter is too simple, but this is not so. It is necessary to take time and do faithful work at each treatment.

ECZEMA

In eczema, both acute and chronic, the physical agents mentioned in the last paragraph give results that cannot help but excite the enthusiasm of both doctor and patient. In acute eczema the air-cooled lamp almost invariably cures. I know nothing more pleasing in treatment than the usual response of these cases. Frequently one dose is entirely sufficient. The same is true of chapped hands, and it is also the treatment which should supersede all others for burns, scalds and chilblains. The principles of diet and hygiene, and the use of alkalides internally, should not be overlooked. Chronic eczema usually responds brilliantly to a combination of X-ray and actinotherapy from the air-cooled burner. The actinic treatment needs to be pushed to the definitely irritative stage, so that there will be an exfoliation of the upper layers of the skin. In old cases, with infiltration and hypertrophic changes, I always give one or two doses of arsphenamine,

regardless of Wassermann report. It is necessary to carefully remove all debris at each treatment.

Eczema is the great complicator. It masks almost all chronic skin diseases. It is the great non-pyogenic reaction of the skin to irritation, making up about forty per cent. of all skin disease. Later, the moisture and heat of the eczematous surface provides ideal conditions for infection, and the first effect of actinotherapy is to sterilize the area, and the stimulating and chemical effect cleans up the condition thus simplified. Careful work will get the result almost every time.

Some one will say I am over enthusiastic. Enthusiasm based on facts is an all-moving force. The public knows in its heart that the medical profession is on the level. Quacks, cults and fake "foundations" are eternally putting up arguments that are shaking to the confidence of the partly informed. They mostly claim to "cure," which is the patient's objective, but we know that in gross pathology there is no such thing as cure in the sense of bringing tissues back to normal. In cancer especially, our aim is to prevent fatal progress. We can retard, ameliorate and prevent. If we excise or desiccate and radiate a cancer of the lip and prevent further growth for a term of years beyond the ordinary span of life, have we cured? It is an abstract question which the fakirs persist in making a concrete one, and thereby impose upon us and upon the public. Belonging to a conservative

profession, we realize what cannot be done. It is equally important to be alert to what can be done.

Physical therapy must be kept in the hands and control of legitimate doctors where it belongs, and the only way to do so is to be alert to its possibilities and familiar with its use.

SUMMARY

Physical therapy is definite. More nearly than in any other form of treatment a certain amount of work will produce a certain result. It is clean. Its control is altogether in the hands of the doctor unless he leaves it to insufficiently trained nurses and attendants. It requires painstaking care. Slovenly work will produce no results. With a few exceptions, it is harmless and painless. From the intimate contact which it provides with the patient, it gives opportunity to excite his interest and maintain his confidence. It is necessary that it be kept in the hands of those who, from their knowledge of the principles of medicine, are capable of applying it intelligently, making co-lateral diagnosis and applying co-lateral treatment as indicated by a broad view of each case founded upon medical knowledge.

REFERENCES

- Pusey — "Principles of Dermatology," 4th Edition.
- Plank — "Actinotherapy and Allied Physical Therapy."
- Sampson — "Practice of Physiotherapy," 2nd Edition.

NECROLOGY

William Elihu Baxter
Bangor and Boston, 1863-1927

A little while ago, as a representative of our Association, I attended the committal services at the burial of a friend, in the person of our fellow member, Dr. Baxter, eye and ear surgeon at Bangor and at Boston. He had left his home in search of health in the South, but met his death at St. Augustine, April 3rd, from typhoid.

Born in Portland, November 5, 1863, the son of William Henry and Mary Jackson Baxter, from Foxcroft, he was educated in the public schools, attended lectures at the Bowdoin Medical School, but received his degree at Bellevue in 1887. He settled in Bangor, obtained an excellent clientage, and, with other leading physicians of that city, founded a general hospital. Ten years later he removed to Boston and continued his specialty.

During the great war he joined the M. R. C., and served abroad as Captain in the 42d Division, but paid for his active labors by returning home weakened in strength and vitality. He never was well afterward, and retired from practice to Topsfield.

Early in life Dr. Baxter married Miss Helen A. Pennell, of Brunswick, and is survived by her and by two sons, one practicing medicine in San Diego, and the other in chemical life.

The funeral services of this old friend of mine were read in the Cathedral Church of St. Paul, in Boston, and the committal service at Evergreen, in Portland, and as he was lowered into his last resting place the bugle sounded taps for his excellent record for the nation.

J. A. S.

Oscar Charles Sanborn Davies
Augusta, 1855-1927



DR. DAVIES

Another old friend is dead, one whom I had known for more than fifty years, friendly as a man and reliable as a consultant. He worked up to the last day of his life, and, although he had suffered from heart disease for a long time, he was visiting patients as usual on a Thursday, when he unthinkingly climbed two long flights of stairs, came down to his motor car complaining a little, arrived home safely and attended to some telephone calls, and after going to bed early he died on the following morning, Feb. 19th.

He was born in Sydney, October 8, 1855, the son of Alonzo and Julia Sargent Davies, studied at Waterville Classical, was graduated academically at Bowdoin in 1879 and four years later medically. After studying post grad-

uate, he became assistant at the Maine State Hospital in Augusta, with Dr. Henry Mills Harlowe. He married there Miss Mary Harlowe and is survived by her and four children.

When Dr. Harlowe retired from the hospital, Dr. Davies also resigned, practiced in New York for five years, and then, after extensive studies abroad, he returned to Augusta in 1895 and remained there the rest of his life. He was very active in establishing the Augusta Hospital, served on the staff from its beginning, and became a very capable surgeon. He was also devoted to the hospital, doing his best to keep it, financially and otherwise, in condition for the benefit of the numerous patients.

Dr. Davies was a leader in the Kennebec County Medical Society and a most useful member of our Association, always ready with something to say when papers in his line of thought were presented. His chief contribution to our transactions was an able paper on "Neuresthenia," the causes and cure of which he defended well in the discussions which followed its reading.

J. A. S.

Adin Louis Smith
Machias, 1969-1927

Dr. Smith, called by the children and the younger people of Machias and the surrounding towns the "Sunshine Man," died in Boston July 17, 1927, following a third operation upon one of his ears. He had suffered through the previous winter from the grippe, which invaded an ear, but despite three different operations in different hospitals, he died suddenly from meningitis following the last and apparently successful one.

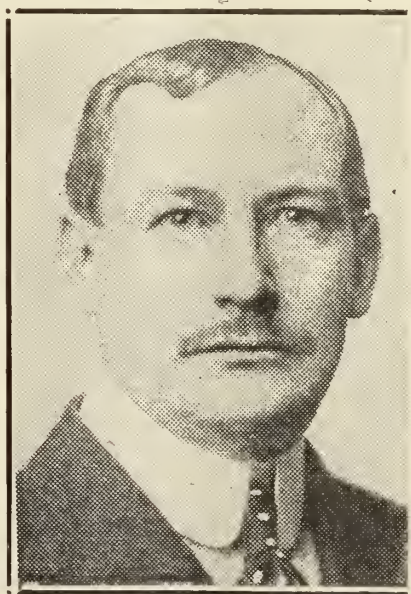
Dr. Smith was born in Jonesboro, December 21, 1868, the son of Captain

Loring and Asenath Jennison Smith, educated at Castine Academy, taught school, and after studying medicine obtained his degree at Jefferson in 1896. He practiced at Jonesboro, and then in Machias, where he was very successful, and also proved a citizen of the highest value to the town and to the counties of Hancock and Washington, in which he was for some time a director of the State Department of Health. He was interested in the Anti-tuberculosis Association, was President of the Chamber of Commerce, Superintendent of Schools, Secretary of the Washington County Medical Society, and an able member of our Association.

Dr. Smith was a man of the highest type of citizenship, and is survived by a widow, who was Miss Alice Bridgham, of Jonesboro, and by a daughter.

J. A. S.

Charles Frederick Traynor
Biddeford, 1874-1927



DR. TRAYNOR

After a long illness of eardiorenal disease, which he bore with great courage, Dr. Traynor, a former member, and Medical Examiner for York County, died March 15. Born at Biddeford, November 8, 1874, the son of John Joseph and Honora Sullivan Traynor, he had a high school education, studied pharmacy, became a registered pharmacist, bought out the drug business of the late Dr. Warren, and, gradually attending lectures at the Bowdoin Medical School, he obtained there his degree in 1910. He was then elected to the office of interne at the Maine General Hospital, where he was of great value to the staff

and as a man cheerful to the patients. He next studied obstetrics in Boston, and was licensed and registered as a physician in Massachusetts.

Returning next to Biddeford, he started in practice and at once found his knowledge of drugs of great value at the bedside of his patients. He became good at surgery, and as he smilingly claimed, he dedicated the Webber Hospital with its first surgical operation.

As a Medical Examiner, Dr. Traynor met with many infanticides and one or two murder cases, in discovering the perpetrators of which his services were of value to Maine.

COUNTY NEWS AND NOTES

Androscoggin County Medical Society

The Androscoggin County Medical Society was held at Dewitt Hotel, Lewiston, Oct. 27th.

Meeting was called to order by Dr. B. W. Russell, the President.

Records of previous meeting were not read.

It was voted to allow all members of the society to act as examiners for applicants to the Citizens' Military Training Camps.

Drs. J. Gottlieb, H. S. F. Greene, Romeo A. Beliveau, and Carleton H. Rand applied for membership in the society.

Voted that applications go through usual channels.

Dr. Thor. W. Harner, surgeon at the Massachusetts General Hospital, Boston, gave an absorbing lecture on "Fractures and Surgical Management," illustrating it with slides and X-ray plates,

emphasizing the newer and more important developments in this practice.

Dr. John E. Cartland, of Auburn, was admitted as a transfer from the Franklin County Medical Association.

There were present Drs. Blinn W. Russell, John Sturgis, Wm. J. Fahey, B. G. W. Cushman, Horace L. Gauvreau, Chas. E. Williams, Wm. L. Haskell, J. Gottlieb, W. J. Renwick, C. H. Cunningham, John E. Cartland, Everett C. Higgins, Ray N. Randall, R. M. Small, E. B. Buker, R. A. Goodwin, G. P. Emmons, L. O. Roy, R. J. Morin, Wm. H. Chaffers, L. J. Dumont, G. A. Schneider, Wm. S. Garelon, J. E. Ponlin, M. S. F. Greene, H. Sprince, of Lewiston and Auburn; Dr. L. A. Sweatt, of New Gloucester; Dr. D. F. D. Russell, of Leeds; Dr. H. L. Irish, of Turner; Dr. Fred L. Chenery, Jr., of Monmouth; Drs. A. W. Plummer and C. A. Wyndham, of Lisbon Falls.

HENRY SPRINCE, M. D.,

Secretary.

Penobscot County Medical Society

The annual meeting of the Penobscot County Medical Society was held at the Bangor House, November 15, 1927.

Dr. C. E. Blaisdell, of South Brewer, was elected to membership.

The following officers were elected:

P r e s i d e n t—Dr. C. M. Thomas, Brewer.

Vice President—Dr. H. E. Thompson, Bangor.

Secretary and Treasurer—Dr. H. C. Seribner, Bangor.

Member of Board of Censors for three years—Dr. N. R. Cook, Newport.

Delegates for three years to Maine Medical Association—Drs. L. H. Ford, H. D. McNeil and Allan Woodcock, all of Bangor. **Alternates for three years**—Drs. M. C. Madden, Old Town, A. J. Bradbury, Old Town, and Dr. F. D. Weymouth, Brewer. **Alternate for two years**—Dr. F. B. Ames, Bangor.

After dinner, Dr. Edwin T. Wyman, of Boston, Mass., gave an interesting paper on "The Use of Ultra Violet Rays in Treatment," with special references to children.

Forty-four members were present, as follows: Dr. E. T. Wyman, Boston; Drs. C. M. Thomas, F. D. Weymouth, and J. A. Lethiecq, Brewer; Dr. C. E. Blaisdell, South Brewer; Drs. S. N. Marsh, S. S. Silsby, Barbara Hunt, H. W. Johnson, A. K. P. Smith, W. E. Fellows, L. S. Mason, J. F. Starrett, D. A. Robinson, L. H. Ford, F. B. Ames, L. M. Rosenthal, J. B. Woods, H. E. Thompson, Allan Woodcock, C. R. O'Brien, H. D. McNeil, J. F. Cox, E. L. Herlihy, T. H. Greenway, J. B. Thompson, J. L. Johnson, A. W. Fellows, H. C. Seribner, and Mr. W. S. Higgins, Bangor; Dr. P. S. Skinner, West Enfield; Dr. W. E. MacDougal, Dover-Foxcroft; Dr. F. D. Sherrard, Winn; Dr. W. B. Trickey, Pittsfield; Dr. N. R. Cook, Newport; Drs. A. J. Bradbury, H. L. Jackson, J. R. Varney, and M. C. Madden, Old Town; Dr. R. H. Marsh, Guilford; Dr. H. C. Knowlton, Hampden; Dr. L. H. Smith, Winterport; Dr. H. G. McKay, Howland; Dr. J. Lezberg, Kenduskeag.

H. C. SCRIBNER,
Secretary.

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*EPIDEMIOLOGY OF ACUTE POLIOMYELITIS

By DR. WILLIAM LELAND HOLT, Portland, Maine

History.—The first medical man to call attention to poliomyelitis as a disease was possibly the Englishman Underwood, who wrote on the subject in 1784. Other pioneers before Heine and Medin were the German physician Joerg, in 1816, and another English doctor Badham, in 1836. Badham observed and recorded true cases of "polio," and in his paper he made inquiry concerning the cause of the paralysis, and was inclined to attribute it to lesions in the central nervous system. He reported four cases which he observed in children of the same neighborhood within a few days, each child being under two years of age. The symptoms were quite characteristic. A child who had been fairly well and playful during the day was put to bed by its mother without any suspicion that it was really ill. On dressing it the next morning she first noticed that the eyes were turned in. Then her apprehension was heightened by finding that it could not stand.

In 1840, Heine (not Harry Heine, the German lyric poet, but a Swede) wrote a famous monograph on the

spinal paralysis of infants. He had charge of an orthopedic institute, and naturally many of his patients owed their conditions to what we now know as poliomyelitis. Vaughan says that it is doubtful if Heine ever saw an acute case of "polio," and he surely never made an autopsy. From a careful study of the history of his cases he came to the conclusion that many of them were due to the same cause, and that the chief lesion was in the spinal cord.

Colmer first called attention to "polio" in the United States in the fall of 1841, by publishing a short note on ten cases of paralysis in infants in the parish of West Feliciana, La. They were all under two years old, and he believed they were due to teething.

Much progress was made by Frenchmen in the next forty years by finding the peculiar lesions of the disease in the anterior horns of the spinal cord. But it was not till 1881 that Bergenholtz, a Swede, first recognized "polio" as an acute infectious disease, by reporting an epidemic as such. This was nearly fifty years ago, yet some people consider it a new disease. Why, Mitchell

* Written for the Portland Medical Club and presented November 1, 1927.

claims to have found good evidence of "polio" in Egyptian mummies, and the cases of palsy and "withered hands" mentioned in the New Testament may well have been infantile paralysis.

An epidemic in Sweden in 1887 gave Medin his opportunity to make the thorough study of acute poliomyelitis which made him famous and gave it the name "Heine-Medin's Disease." According to our Dr. Victor C. Vaughan, however, priority in this connection should be given to a Frenchman, Cordier, who in 1885, two years earlier, gave a detailed history of thirteen acute cases in France, and added that "the epidemic was infectious, specific and properly speaking microbial." In 1890, before the Tenth International Medical Congress at Berlin, Medin quoted Cordier's report, and added: "Cordier believes the disease is contagious, but upon this point I have come to no positive conclusion." Also, "Cordier recommends that children sick with this disease be isolated, and that well children should be prevented from contact with those ill; whether this be useful or not I cannot say." Apparently Cordier is the father of quarantine for "polio" and should be given his due.

Again a Swede, Wickman, in 1905, reporting on a Swedish epidemic of a thousand cases, was the first to prove that "polio" was carried from person to person, partly by those who have had the arrested form without paralysis, but more by persons in perfect health serving as healthy carriers. Now nearly a quarter of a century after Wickman we have not gotten much beyond him in the epidemiology of this puzzling disease, and his theoretical explanations of its mode of spread have only been upheld by nearly all the re-

search work done since. He showed how irregular was the distribution of the cases—in small groups of five or six cases with large free areas between. The rural districts were often scourged, while the larger cities were but lightly visited. He went into out-of-the-way places and showed that the disease got a start by some carrier bringing in the virus and establishing a focus of infection. This was often an isolated schoolhouse, to which the virus was brought from outside, often by someone who had neither had the disease nor developed it later.

Etiology.—Although no less a savant than Simon Flexner claimed, about 1912, that he had found the causal organism in minute "globoid bodies," which he found always in the brains of children and monkeys dying of the disease, and although he cultivated these in Noguchi's medium and caused typical lesions of "polio" with his organism in susceptible monkeys, and the 1922 edition of Osler's "Practice of Medicine" accepts Flexner's discovery without reservation, still our conservative medical scientists have not accepted the "globoid bodies," nor Rosenow's streptococcus; and Milton J. Rosenau, in the 1927 edition of his standard textbook, often called "The Health Officer's Bible," states frankly, "organism unknown." The germ is so small that it passes through the finest Chamberland filter, but the virus of yellow fever is also filterable, yet Noguchi proved it was a visible organism, the "leptospira ieteriodes," and grew it.

Age is very important in the etiology, although no age is really exempt, as Rosenau says even grandfathers have succumbed to "polio"! Babies in the second year are most susceptible, then

infants and young children under five. Rosenau says about 65% of cases are under the age of five and 90% under ten, with only 5% in adults. The proportion, of course, varies much in different epidemics. The male sex is harder hit—56% boys against 44% girls. Mortality is high usually in infants and adults, least in children from one to five. Above five it gets higher as the age advances. There is no racial immunity, although the great majority of cases have been in whites.

Although a warm weather disease, it spares the warm climates and is severest in the north temperate countries of Europe and America. The peak in epidemics has usually been in August or September, with a rapid fall in October, or when cold weather came. Only one severe outbreak has occurred in cold weather, namely, one of 3,840 cases in Sweden in 1911, in October to December.

Density of Population, Social Conditions, Sanitation.—It has always been noted as peculiar to "polio," that the rate of morbidity is inversely proportional to the density of population. With the exception of the great epidemic of 1916, when New York City was so hard hit, large cities have been visited lightly and smaller towns struck harder, and rural districts the most of all. The disease is hardly influenced by social or economic conditions and very little apparently by hygienic conditions.

Transmission of Infection.—The story of "polio" seems to be the one "mystery story" left among the infectious diseases. Yet some facts, indeed many, about its spread have been definitely established, and I shall try to distinguish between these and the theories.

First, as to the location of the virus in man and the duration of its virulence. Landsteiner and Popper proved in 1909 that the virus was in the spinal cord of a child dead of the disease. Then in 1911 Kling, Petterson and Wernstedt proved on monkeys that the virus was present both in dead victims and in the living cases, not only in the brain and spinal cord at autopsy, but also in life in the secretions of the nose, mouth and intestines. Then they found the virus in many exposed yet healthy persons, who were thus carriers. They demonstrated this in six families. In three families several virus carriers were found in each family, three each in families I and K and two in family M. In each family one typical paralytic case occurred. We seem then to be justified in assuming that healthy "carriers" of this virus are very common and greatly exceed in number the clinical cases.

Persistence of the Virus.—Flexner and Amoss consider it regularly present in the nasopharynx in the first few days of acute illness, especially in fatal cases, but it diminishes relatively quickly, and *the carrier state does not usually develop*. As the duration of quarantine logically depends entirely upon the duration of infectivity, it is of the utmost importance to know this; but it is just here that the mystery comes in. As monkeys are not as cheap as culture tubes, and not always susceptible anyway, a very limited number of convalescents and healthy carriers have yet been tested. On the one hand, Rosenau, et al., in 1911, did not find the virus in the nasal or buccal secretions of eighteen convalescents tested at different periods. On the other side—and positive findings are always worth

more than negative in such work—Kling, et al., did find the virus in the secretions of the nose and intestines often for several months after the acute attack. In one case the virus taken two hundred and four days, nearly seven months, after onset was virulent enough to kill the monkey. In only one case did they fail to demonstrate the virus after a period of thirty days following onset. *If these findings are confirmed, we should quarantine "polio" cases for at least thirty days, if at all.*

In this connection I must tell the story given in Abt's new textbook of "Pediatrics." A boy who had his acute attack of "polio" in February, 1910, had a relapse in September, 1912, at which time he was believed to have also infected his sister, and for this reason his secretions were tested on a monkey. They were virulent not only then, but also in January, 1913, four months after his relapse or second attack, and nearly three years after his first onset! This beats in duration the longest diphtheria carrier reported to my knowledge, which was about twelve months; but of course it is common to find persons typhoid carriers ten to twenty years after the disease.

Resistance of Virus.—It is very resistant to both drying and freezing, but easily killed by heat, the pasteurizing temperature of 145° F. killing it in thirty minutes or a much lower heat of 113° F. These biological characteristics may help to explain its failure to thrive in the tropics, where it would be more liable to death from overheating outside the body, although its existence elsewhere is now believed to be of no importance in its propagation.

It will live for years in 50% glycerine with 0.5% carbolic, but certainly

not in 5% carbolic, as Collier states in the *British Medical Journal* (perhaps a misprint). It is killed by potassium permanganate in a very weak solution 1:500, by 5% boric acid; but the favorite antiseptic for the nose and throat is 1 or 2% hydrogen peroxide. I will speak of that later under prevention.

Virus on Fomites.—Josefson tested such infected objects as handkerchiefs, picture books and flies that had been caught and handled by acute cases with the following results: The handkerchiefs and fancy work done by the patients were positive to the monkeys; the picture book and the flies were negative.

Direct Contact Infection.—So far as the clinical case of true "polio" goes, direct contact between acute case and healthy person only exceptionally transmits it. In this sense *only* it is justifiable to say that "polio" is *not contagious*, certainly not more contagious than typhoid, which is also occasionally caught by personal contact with a patient. The quantitative measure of contagiousness was worked out by Dr. Frost, of the U. S. P. H. S., as 1/15 il that of scarlet fever. The earliest observers noted the usual occurrence of but one case in each family, regardless of the number of children. The best figures on this and all other statistical points in "polio" are best taken from the great New York epidemic of 1916, with its round 9,000 cases and 2,400 deaths in New York City alone. In 96% of the families attacked there was only one true case; only 293 families, or less than 4% of all families affected, had more than one case. Over 16,000 children thus intimately exposed to contagion in the home went apparently scot-free. Moreover, in those families

with multiple cases the dates of onset were so near that they pointed to simultaneous infection; or at least from a child or person outside.

Our recent epidemic in Portland happens to show just the same proportion, with only one family out of the twenty-three having more than one case, and the onsets of those two being September 1 and 2, thus excluding the possibility that one child infected the other.

These are facts; the explanations of them are various and are still only theories. Let us consider the leading ones.

Insect Transmission. — This theory denies the virus is spread at all by direct contact or in any way but the bite of some insect. When, in 1912, Rosenau and Brues succeeded in infecting one monkey by the bite of a stable fly which had bitten an infected monkey, it looked as though the mystery was relegated to the class of malaria, yellow fever, plague, etc. Subsequent work, however, was negative. Brues still claims the virus may be spread by rat, cat or other fleas for many reasons which we will not go into here, but may be summed up by saying that the epidemiology is somewhat similar to that of bubonic plague. Simultaneous outbreaks of plagues in various animals have often been noted.

Air-borne infection has also been proposed, based on success in infecting monkeys with the dust collected from sick rooms. Also the virus is very resistant outside the body to both cold and drying. There is most dust in August and September in the north temperate zone; children are exposed to dust, irrespective of economic and social condition to a great extent.

Dr. Mark Richardson, secretary of the Massachusetts State Board of

Health for many years, who lost two children in one "polio" epidemic, developed much evidence for his theory that "polio" was spread by rats.

None of these three theories is at all in favor at present.

We come next to *Transmission by Infected Food or Drink*. Now we are getting on solid ground. Transmission of "polio" by milk has definitely been proved, so that our best authority, Dr. M. J. Rosenau, uses the following words in his latest edition: "It is now clear that the virus may be taken in food or drink. It is also plain that while milk may be a vehicle, it is not the usual way in which the disease is spread." Let us examine the evidence against milk. Only two milk-borne epidemics with adequate evidence have yet been reported, so far as I can find, but a friend in the Massachusetts State Board informs me that Aycock will shortly report two others.

In the great epidemic of 1916, Dingham reported a group of eight cases, which were the only ones to develop at the time in and near Spring Valley, N. Y., all beginning July 20-22, and all using raw milk from the same two-cow dairy. Moreover, the three other families supplied boiled their milk and escaped infection; and finally a case of "polio" in a four-year-old child had occurred at the dairy July 4. As such a chain of facts would be considered sure proof of milk-borne infection, if it had been typhoid or scarlet fever, we should draw the same conclusion with regard to poliomyelitis. It is perhaps worth mentioning here that monkeys have also been infected by feeding the virus when an opiate was given to slow down peristalsis. The frequent occurrence of gastrointestinal disturbances

at the onset of "polio" and the regular finding of the virus in the intestines both favor infection via the alimentary tract.

The other 'milk-borne outbreak of "polio" was at Cortland, N. Y., in December, 1925, and was reported by Knapp, Godfrey and Aycock in the *A. M. A. Journal* for August 28, 1926. From December 14 to 25, eight cases occurred, all taking Mr. G.'s night's milk. There were no other cases in town at the time, but had been four cases on the same day two months before, October 7. On December 7, a boy who had been milking on the farm supplying most of G.'s milk was taken ill with "polio," but kept on milking till the morning of the 11th. There was thus abundant chance for him to infect G.'s milk, and none of the eight cases had any direct contact with the disease, although two had indirect contact by attending a theater where the mother of one of the October cases sold tickets. The cases were very scattered, as usual. The only weak points are: (1) Of 430 customers of dairy G., with 133 under fifteen years old only eight were apparently infected; (2) the time elapsing between the date of infection of the milk by the sick boy and the onset of symptoms in the patients varied greatly from three to fourteen days. Aycock states, however, that in typhoid milk-borne epidemics in New York State the average amount of milk sold daily by the implicated dealer per case has been fourteen quarts, and that if we count only the first delivery of G., the night's milk, which all the cases drank, we get about the same figure of thirteen to fourteen quarts per case. *The authors agree with Rosenau that milk is not the usual mode of spread of poliomyelitis.*

The special committee which investigated over 5,000 cases in the New York 1916 epidemic said: "We could find no substantial evidence to support the notion that the virus is carried by food, lower animals or insects." In this Portland outbreak the great majority of cases were taking pasteurized milk, and the seven taking raw milk got it from different sources, so there is no reason to suspect milk transmission. In the epidemic of twenty cases in Maplewood, N. J., in 1916, of which I had charge as Health Officer, the condition was quite the same as here with regard to the milk supply. The cases were well scattered, with no discoverable connection between them, as usual, but we did have multiple cases in four families, which was a quite unusual proportion.

Healthy Carrier Theory. — Let us now trace the development and the arguments for the present favorite theory that "polio" is a contagious disease and is spread by direct transfer of the nasal and buccal secretions, but mostly by healthy carriers. This goes way back to Wickman, who saw enough evidence to convince him the infection was often carried by well persons from infected families. Then Kling, et al., proved scientifically, in 1911, that for each real case in a family there were several other members carrying the virus in the nasopharynx. They stated in the conclusions of their valuable research: "When we discover methods that admit of an etiological diagnosis (that is, bacteriological diagnosis as in diphtheria), we shall probably find that poliomyelitis is a common disease of childhood, generally displaying only very slight symptoms, but sometimes acquiring a more virulent character, giving rise to

disturbances in the central nervous system. The same applies to other infectious diseases. Scarlet fever, for instance, in some epidemics attacks the kidneys much more than in others. We shall then perhaps explain the fact that adults rarely get "polio" by the fact that they have already had the disease, in a very mild form, in their childhood. This is, of course, the case in measles and scarlet fever. Finally, we may discover that the reason why "polio" is much less common in the cities than the country is that the mild or protective form is so much commoner in the cities, due to the more lively communications."

In this connection I may mention that Vaughan, in his exhaustive chapter on this subject, declares the number of abortive cases in an epidemic is at least five times the number of frank, paralytic cases. The New York committee above mentioned endorsed our present theory in their pithy summary as follows: "We regard the disease as one (a) communicated by personal contact, (b) in which the *slight and abortive cases are the chief source of contagion*, (c) in which the incubation period varies from three to ten days." They add: "We were not able to make a special study of the healthy carrier, but we think he probably plays a less conspicuous part in disseminating the infection than does the mild and often unrecognized case."

It is evidently impossible to draw a clear line between the "very mild, unrecognized case" of the New York committee and the "healthy carrier who never had the disease." They surely merge into each other, yet for the sake of clearness we should distinguish between them.

I should like here to present some evi-

dence from a recent report of a "polio" epidemic in White or West Russia, on the Polish border, which indicates that the fathers of acute cases often carry the infection to their neighbors' children. The date was June to August, 1925, and it was reported by Dr. M. Chasanoff, of Minsk, in the *Zeitschrift fuer die gesamte Neurologie und Psychiatrie* for 1926. There were thirty-three cases in Zasslawl and nine in Koidanowo. Author claims that over half the cases originated by direct transfer from one child ill of "polio" to another. In one small town of about thirty-five houses eight children, all related to one another and in direct communication, came down with infantile paralysis, one after the other, at short intervals. He found that the other cases also occurred after some communication between the family concerned and that of a child who had been attacked by the disease earlier. Six examples are given like the following: (1) "A woodsman visited his relatives at Ogarki, whose children were ill with infantile paralysis. A few days after his return home, both of his children were struck down. (2) A peasant, D., whose house is directly on the main road, was visited by friends from Ogarki (infected town), and some days later his child got ill with infantile paralysis. Shortly after this, the D. family was visited by a widow from the town of Mitkowo. After her return this widow called upon her neighbor and played with the little Eduard. Result: A few days later little Eduard came down with infantile paralysis.

Most of the fathers of the afflicted children traveled about a good deal and were surprisingly well known to one another, perhaps because many were engaged in smuggling across the Polish

border. Many of the ten cases in Minsk were traced to a visit by the father or the whole family in Zasslawl, the chief focus of infection. In the Minsk district, with nearly 500,000 population, there were only sixty-four cases, a very low incidence; most of the cases in White Russia in this epidemic were, however, among peasant children in the rural sections. The children affected were those whose fathers' profession or business required them to travel widely, to make long trips into infected districts, or whose business made them have a lively intercourse at home with strangers from outside. Of seventy-seven parents of cases, forty-nine for example, were innkeepers. Most of the cases were in very small places; in all but two the population was two to fourteen families.

In the two towns chiefly affected and simultaneous with the infantile paralysis outbreak were plagues among the chickens and swine. The children also suffered much from gastrointestinal diseases. An interesting observation was that the "polio" was most severe in those towns and districts where the other children's diseases, like measles, etc., had been least, and those districts were spared where the children's diseases had been worst.

Social and Hygienic Conditions.—Cases occurred among the rich and the middle class, as well as the poor, but the great majority were among those living in extremely unhygienic conditions. And the author admits that the peasants of White Russia are far from white, living in unspeakably filthy huts, full of vermin of all sorts, and "know neither soap nor bathtubs; they rarely wash either clothes or bodies." It was

perhaps the first Russian epidemics of "polio" as yet reported.

Another point worth mentioning was the author's remark that it usually happened in an affected family that all or most of the children first got a gastrointestinal disturbance, and later paralysis, etc., developed in one or two. As he says, possibly these gastrointestinal cases might also be included with the abortive forms; also the frequent cases of mild chorea that he observed. The mortality was very low, only 4%.

James Collier's Theory.—I came across an original theory in this connection in an article in the *British Medical Journal* for last April by James Collier, of St. George's Hospital, London. I should like to know what his standing is. He "goes the whole hog" by declaring that the virus is spread wholly by healthy carriers, and that as soon as a person develops the true disease the virus on his mucous membranes loses its virulence so he cannot convey the infection! He says, "In reports of claimed case-to-case infection, which are rare anyway, they claim that the first case in a family infected another child; but as we know that already at the onset of this first case there were other members of the family carrying the virus, the chances are about three to one that the secondary case was infected by one of the carriers of the family rather than by the case itself." He says the best proof of the non-infectiousness of the acute case is the fact that of all the acute early cases sent to children's hospitals in London in the last thirty years not one has spread the infection. He quotes Dr. Batten's experience for thirty years at the Great Ormond Street Hospital for Sick Children, London, in

support of this. Author thinks the evidence of non-contagiousness of the typical case is conclusive, but, knowing how difficult it is to convince the public of it, he advises to continue our isolation.

His ingenious theory of a "polio" epidemic is as follows: The epidemic proper is preceded by a carrier epidemic, in which the virus is spread very widely by direct contact and a great many healthy carriers are made, but for some time no cases result. From repeated transfer to susceptibles, however, the virus finally gets strong enough to cause typical cases, which naturally occur at widely separate places about the same time; there is a sudden flare to a peak followed by a sudden drop. Thus he explains the sudden occurrence of fifteen cases, the first of an English epidemic, on the same day in fifteen widely separated places of one countryside.

Now if this theory of a preceding carrier epidemic is correct, when the first case occurs in a boys' school, they have already nearly all been exposed to the virus, and are infected either as cases or carriers, or are immune. The damage has been done; the cases themselves are not infectious, so the logical thing to do is not to disband the school and so spread the disease by scattering the carriers, but to keep the boys together till the cases have stopped and the carriers have become non-virulent.

Collier is certainly quite mistaken in his statement that the virus cannot be found in the nasopharynx of an acute case, and that hence the case itself is absolutely non-contagious. I believe his theory of a preliminary carrier epidemic is very plausible, and I endorse his practical handling of an outbreak in a boys' school or camp. The sensible

thing to do is to isolate the case and continue the school as usual.

Dr. Aycock, in an address to the Public Health Section of the A. M. A. at Dallas on this subject, in April, 1926 (*A. M. A. Journal*, July 10, 1926), made some new arguments for the favorite theory above sketched, especially for the supposed wide distribution of the infection. (1) The age distribution of "polio" cases is very similar to that in measles, scarlet fever and diphtheria, especially the last disease. Since we know that this distribution of susceptibility and morbidity in diphtheria is due to widespread exposure and the immunity resulting from repeated subinfective doses of the virus, Aycock rightly points out that we are justified in supposing the similar immunity to "polio" in adults and older children generally found is due to the same causes. We have no Schick test for "polio," but the much lower morbidity noted in the New York epidemic in densely populated Manhattan corresponds beautifully with the much lower susceptibility found to diphtheria in New York and elsewhere among children in the slums than in good residential districts. In New York the highest case rate from "polio" in 1916 was 3.2 in Queen's Borough, which was next to the lowest in density of population; the population density in Manhattan, where the morbidity was lowest, was 176 persons per acre, compared with 3.5 in Queen's.

In the dense population of a city we find the greatest incidence at two to three years, but later in the country, as we should expect from the greater, early opportunity for infection in the city. Moreover in the city there is a sharp drop in incidence at ages above three, so that we find only about 10% after ten

years. This would theoretically inevitably result from very widespread exposure to the contagion in the city; most every person above ten years old would have been exposed at least once, often several times, and would have died or developed immunity. In the country, on the contrary, we find the peak of incidence by age not so pronounced, the fall after five years not so rapid, and a larger percentage of cases in older children and adults; and this is also what should result from less widespread infection and opportunity to acquire immunity either by subinfective doses or by an abortive or frank attack.

The best authorities now declare that so-called abortive cases during an epidemic are not nearly so common as has been asserted. I have quoted Vaughan, for instance, as saying there were at least five times as many abortive cases as paralytic. Even Abt's estimate that 50 to 80% of all cases in an epidemic are non-paralytic is regarded as an exaggeration. Aycock mentions an outbreak in a camp of sixty boys, where three paralytic cases occurred in one week, and careful search failed to reveal a single possibly abortive case. He found the same to hold true of several school epidemics. In the discussion of Dr. Aycock's paper at Dallas, Dr. J. P. Leake, of the U. S. P. H. S., and two other public health men, agreed that often abortive cases were hard to find in "polio" epidemics and certainly cannot satisfactorily account for the spread. Dr. Leake said it had been repeatedly suggested to him by his epidemiological studies of "polio" that the adult male member of the family is likely to be more dangerous than others. I pointed out that in our epidemic of twenty cases in Maplewood, N. J., in 1916, the first

case was in the part of the town next Newark, where many cases had already occurred, and as the father of the child worked in Newark as a plumber, and no child from Newark or elsewhere had visited the house for a long time, I always suspected the father of having brought the contagion home himself.

The other point made at this meeting by Dr. Aycock in favor of our favorite theory was the following: The serum from many normal persons, being a considerable proportion of those yet tested, has shown a viricidal power which normal monkey serum does not possess, but that of immune monkeys does; and this properly suggests that these immune persons have undergone a process of natural immunization.

Prevention.—Theoretically, the ideal way to protect children against this dangerous disease, it seems to me, would be to follow the analogy of our control of diphtheria, viz., to immunize every infant at the age of six months to one year by either a safe vaccine or a sort of half-neutralized toxin. We have certainly learned, to our sorrow, that we cannot surely protect children by guarding them from contact with other children, giving them no raw milk or other raw food, etc. Only complete isolation for many months, as was done on Barren Island, in New York Harbor, is effective by preventing any possible entrance of carriers.

For this reason I wish to report the result of some very recent attempts to develop a vaccine capable of immunizing monkeys. The work was done by Drs. J. C. McKinley and W. P. Larson, of the University of Minnesota (*Proceedings of Society for Exp. Biology and Medicine*, January, 1927); they used "polio" virus detoxified with so-

dium ricinoleate, that is, castor oil soap. The virus was standard, obtained from Rockefeller Institute.

Monkeys inoculated intracerebrally were killed at the height of the disease, and a saline emulsion made from 1 gram of the infectious brain matter. This was used as a control, and all the monkeys given it contracted the disease. Another gram of brain virus was emulsified with 5 to 10 c. c. of castor oil soap. This soap emulsion was then injected into normal monkeys by different routes to establish the assumed immunity if possible. Some weeks later they were injected intracerebrally with the virulent saline emulsion to test their immunity. In the first place, it was established that the castor oil emulsion was safe to give a monkey, as not one case of the disease resulted from about sixty injections given. This is certainly very encouraging for the development of a vaccine. Monkeys Nos. 3, 14, 15 and 17 were thus injected for immunity, while three others were used as controls. The controls when given the straight virus all developed typical "polio." *Of the four inoculated animals only one developed symptoms of "polio" and that was a mild form, so that it was killed after fifteen days.* The authors say the deduction is permissible that three of the treated animals were completely immunized and the fourth partially. They modestly point out, that two facts make the experiment inconclusive, viz.: (1) The small numbers used; (2) the Rockefeller virus used and the method of injection does not always produce the disease in monkeys without immunizing treatment, though it does in 70 to 75%. They declare their intention to repeat

the experiment until a sure result is obtained.

Practical Prevention or Control.—

To turn to present practical methods of control. We must do all the things that are indicated by both theories of transmission, namely, by personal contact with acute cases and exposed persons of any age, who are liable to be carriers, also by infected raw milk and fruit. Of course the patient should be isolated strictly (in spite of Dr. Collier!) in a room well screened and free of flies, although the insect theory is nearly abandoned.

A new point to me, which I came across in Vaughan, was that a large proportion of the New York cases in 1916 had enlarged adenoids and tonsils, and not many cases occurred among children who had had them removed. Indeed, among 1,400 school children who had had the operation it was found that not one case of "polio" had occurred, although eighteen had been exposed to a case in the family and ninety-three to one in the same house. Of course the incidence among children of school age was very low anyway. Without giving the incidence among school children who still had their tonsils, or had enlarged tonsils, or among all school children in the New York epidemic, I fear this fact has no great significance. We might make use of it, however, to persuade a reluctant parent to consent to having Johnnie's tonsils removed when otherwise indicated.

We can surely make a much stronger argument that parents should not give any child raw milk if they want to give him every protection they can during a "polio" outbreak. Infection by raw

milk has certainly been proved to the hilt.

In this connection it is worth mentioning that the City Health Commissioner of Chicago noted in 1916 that very few cases of "polio" occurred among children who were using pasteurized milk distributed through the Nathan Straus infant welfare clinics, and he believed that milk might be an important vehicle of infection. Accordingly he issued an order that all milk sold in Chicago must be pasteurized, and that was the entering wedge for compulsory pasteurization of milk, which has undoubtedly helped tremendously in attaining Chicago's wonderfully low typhoid rate of about 1 per 100,000.

Dr. Haven Emerson, Health Commissioner of New York during the famous "polio" epidemic, believed that at least two points in prevention were established by that terrible experience: (1) Prompt hospitalization of all but moribund cases probably does check the spread of the disease and determines a lower incidence under otherwise similar conditions. In Manhattan, 96% of the suitable cases were hospitalized; in Brooklyn, only 46%. The death rate per 1,000 population in Manhattan was only 0.94 against 2.24 in Brooklyn. (2) Isolation of groups of children from contact either with other children or adults in areas where the disease is prevalent suffices to protect them almost absolutely from infection, in spite of use of identical water and food supplies, exposure to the same atmospheric conditions (such as dust) and winged insects. The striking proof was the complete absence of cases among eighty to ninety susceptible children at the Military Post on Governor's Island, and the

still more remarkable escape of some three hundred fifty such children on Barren Island, in Jamaica Bay, although the city garbage plant is there, and the children were exposed to very unsanitary conditions, especially to many rats, flies and other insects.

The Portland Epidemic began on August 20 and apparently ended just two months later, with the twenty-fourth resident case reported October 20. The incidence was very low compared to the big New York epidemic, being only 30 cases per 100,000 population against 150 for New York. The mortality of four cases was one-sixth, or 17%, also low. Cases were about evenly divided as to sex, but the age distribution was unusual: 3 under one year; 8 from one to three inclusive; 3 in their fifth year; 6 among older children from five to twenty, and 4 adults. This gives 14, or 58% only, under five; only 18, or 75%, under the age of ten instead of the 90% of the New York epidemic. The fatal cases were aged three, six, twenty-seven and twenty-eight—unusual to have half the deaths in adults and no deaths among infants.

In distribution, the cases were well scattered, as usual, except for the nest of five on Newbury Street. Even there there was as even a distribution as possible—just one case to each of the six blocks containing residences except one. The first case in the city was at 161 Newbury Street; the next two cases on the street came down seven and nine days later; then after fourteen days the last two at Nos. 87 and 122 came down. As Dr. Tetrean was on vacation, I did not learn whether any apparent connection was found between these five Newbury Street cases. I noticed that it was a very poor quarter and that the records

showed a large number of young children in most of the families—fourteen for four of the families—yet no multiple cases occurred.

Milk Supply.—I inquired carefully into this at the Health Department and was glad to see it was recorded in most every case. Of twenty families where the milk is noted, no less than thirteen were taking pasteurized milk; and the other seven each took from a different dairyman, so I doubt if even Dr. Aycock could find much evidence for milk-borne infection out of that. Dr. Pepper, District Health Officer, tells me that a man bottling milk for one of our Portland dairies was attacked by “polio” while at work and so had a good chance to infect the milk. He was, of course, stopped promptly from work and the milk was ordered to be pasteurized, but no case on the dairy’s route developed. Perhaps if he had been milking the cows, the dairy’s child patrons might not have been so lucky! The danger of infecting milk in bottling is only a small fraction of that involved in milking, with the hands equally dirty.

In closing, I wish to state my own conviction that “polio” is really a very widespread disease, or, better, infection; that as Kling, et al., suggested back in 1911, most people are so fortunate as to get immunized to it in early childhood by subinfective exposure, or less often by very mild attacks; that it is occasionally spread by raw milk, probably also by other raw food, but chiefly by healthy carriers, especially adults, parents of infected children, and missed, abortive cases; that it is quite useless to try to stop an outbreak in a community by closing one or all schools. Finally, I think that with the recent brilliant success in controlling diphtheria, and to a less extent scarlet fever, we may hope soon to see some method of protective vaccination worked out for “polio,” especially if the true casual germ can be ascertained, but even without that. We should never forget that science has never discovered the cause of smallpox, and yet has had a perfectly efficient vaccine for it since Edward Jenner announced it in 1798.

JOURNAL OF THE MAINE MEDICAL ASSOCIATION

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EDITORIAL COMMENT

Sheppard-Towner Act.

We have at hand an abstract of the annual report of the Children's Bureau, United States Department of Labor, showing the work of the Child Hygiene Division of the Children's Bureau for the past year. This bureau was created to aid the states in a survey and study to prevent maternal mortality and infant mortality during the first year of life.

The report begins with the three-year study of rickets in New Haven, and passes on to the tabulation of material collected during two years' study of the effect of posture on the physical fitness of children in the schools of Chelsea, Mass., a report of which is now being written, and field work in connection with the study of the treatment and education of the crippled children in ten states, etc.

We would recommend our readers to secure from the American Medical Association, 535 North Dearborn Street, Chicago, Ill., Bulletin No. 8 (November), and read Dr. Woodward's article on the Sheppard-Towner Act. After a careful analysis of the act and its four-year accomplishments he concludes as follows:

"It has been pointed out elsewhere that the policy underlying the Sheppard-Towner Maternity Act is calculated to justify or excuse the establishment of a system of federal subsidies whereby the government at Washington may induce the states to yield to it their constitutional rights to supervise and control intrastate activities in the field of maternal and infant hygiene. In this article it is pointed out that mere administrative practice under that act may enlarge federal domination so as to make it cover intrastate activities seemingly remote from those named in the act. The act seems to have been intended only to provide funds through which federal officers could dominate health activities immediately related to maternal and infant hygiene. Here one can see from official records how funds so provided have been used to acquire the right of supervision and control over special work for the boys' and girls' clubs at the state fair in Colorado; over the activities of the state health officer in Kentucky: over the examination of milk, of water and of specimens submitted for determination as to the presence of hookworms and other para-

sites in Louisiana; over a survey of crippled children in Maryland, over certain milk supplies in New Mexico; over orthopedic clinics and certain post-graduate medical education in New York; over pediatrician fellowships in Ohio; over the activities of a milk technician in South Carolina; over scholarships for nurses in Virginia; and so on.

"That the activities named are activities in which the states may properly engage, no one can deny. That such activities within a state should be supervised and controlled by federal officers may well be denied. That federal officers do supervise and control intrastate activities in the fields named, to the extent that such activities are paid for from Sheppard-Towner funds, is clear; otherwise the federal officers charged with the expenditure of such funds would be derelict in their duty to see that such funds are expended in accordance with law and with the plans that have been approved by them. The act itself requires the approval by federal officers of plans for any intrastate health activities toward the expense of which the federal government is contributor, before the state can enter such activities; and when such activities are under way, they are by law subject to the supervision and control of federal officers, who may penalize any state even to the extent of the withdrawal of federal funds, if the work is not being done in a way that meets the approval of such officers. And the supervision and control that may be made the bases

for the withdrawal of federal funds covers not only work paid for from such funds, but also the co-ordinated state work paid for from state funds.

"The constitution gives to the federal government almost unlimited taxing power. It gives to the states almost unlimited power to protect and promote the health of their people, free from federal interference. The Sheppard-Towner Maternity Act constitutes a device through which the right of the federal government to tax and the right of the state to control its own health activities may be bartered one for the other. The federal government, through its taxing power, collects money either directly or indirectly from the people of the several states. Through the Sheppard-Towner Maternity Act it agrees to pay back to the people of the states, on certain conditions, some or all of the money thus taken, and in some cases more. By the return of such money, the federal government offsets or negatives the collection of it by taxation in the first instance. But the only condition on which the federal government will return the money thus collected from the people of the states is that the states, in return therefor, cede to the federal government their constitutional right to supervise and control health activities within their own borders, free from federal supervision and control. If our government is to continue as a dual government, on its present constitutional basis, it seems essential that neither Congress nor any state legislature sanction any such system of

barter. It is vital, however, that if Congress or any state legislature sanction any such barter, the limits within which it may be carried on be clearly defined by the legislative body itself. They must not be left to be determined by federal boards, bureau chiefs or other administrative officers."

It is certainly time that the medical profession of the country should take a more active part in matters pertaining

to health legislation. Only through the insistant urging on the part of the medical profession was health departments created for the protection of mankind, and now that they are functioning, we should also take a guiding hand in their interpretations of their duties, otherwise we are approaching quite rapidly to some form of state medicine under federal supervision.

COUNTY NEWS AND NOTES

Kennebec County Medical Association

A special meeting of the Kennebec County Medical Association was held at Waterville, Tuesday, November 15, 1927. This meeting consisted of two parts. The first was clinical and was held at the Sisters' Hospital, the second was public and held at the Junior High School.

At the clinical session the following cases were presented: "Pregnancy, Complicated by Diabetes," Dr. R. L. Reynolds; "Fracture of Femur," Dr. E. W. Boyer; "Ureteral Calculus," Dr. B. O. Goodrich; "Diabetes, Complicated by Gall-Bladder Disease," Dr. J. O. Piper; "Brachial Plexus Injury, Simulating Intracranial Hemorrhage," Dr. E. H. Risley; "Cervical Pott's Disease," Dr. R. T. Hill; "Gangrene, Diabetic or Senile," Dr. J. E. Poulin.

A paper was read by Dr. Leon Herring, of Winthrop, on "Blood Stream Infections," which was followed by a

round table discussion. This was very interesting and was fully participated in by those present.

While this program was being held the wives of the visiting doctors were being entertained by the wives of the local doctors at bridge.

Dinner was served at 6.30 P. M., followed by a short business meeting.

The minutes of the last meeting were read and approved.

As this was a special meeting, the application of Ralph W. Bicknell, of Winthrop, was laid on the table until the next meeting.

At 7.30 P. M., the meeting adjourned to the Junior High School Auditorium, where a public session was held. This was also presided over by Dr. F. T. Hill, President. Dr. R. H. Gilpatrick, of Boston, President of the Speech-Readers' Guild, spoke on "Deafness; the Importance of Early Recognition, Prevention and Proper Educational Facilities for the Hard of Hearing." The next

speaker was Mrs. Caroline Olin, of Boston, who has been conducting audiometer tests in the Waterville schools. Mrs. Olin spoke on the results of these tests and also gave a demonstration of the use of the audiometer. Dr. Augustus O. Thomas, Superintendent of Schools, spoke next, and in the course of his remarks stated that 2,200 children were found last year with defective hearing in the public schools of Maine. Other speakers were Grube Cornish, Secretary of the State Board of Charity and Corrections, and C. E. Glover, Superintendent of Public Schools in Waterville. The final speaker of the evening was Mayor H. C. Libby, who spoke more along the lines of pronunciation, which, he declared, is so necessary to good hearing.

This is the first time in the history of the Kennebec County Medical Association that the public has been invited to join with them in their meeting. This meeting was well attended, and great interest and enthusiasm was shown by the audience. After the meeting a public demonstration and use of the audiometer was given by Dr. Gilpatrick.

The following members and guests were present: Drs. F. T. Hill, B. O. Goodrich, J. P. Goodrich, J. E. Poulin, A. H. McQuillan, J. Fred Hill, P. S. Merrill, B. P. Hurd, J. O. Piper, H. F. Hill, P. L. Reynolds, E. W. Boyer, E. H. Risley, A. R. Davreau, H. W. Abbott, of Waterville; F. R. Carter, C. F. Kendall, R. H. Stubbs, F. C. Tyson, S. H. Kagan and G. R. Campbell, of Augusta; R. D. Simons, of Gardiner; C. H. Newcomb, of Clinton; V. C. Totman, of Oakland; L. D. Herring, F. H. Badger, of Winthrop; W. W. Hendee, of North Vassalboro; H. E. Williams, of Mt. Vernon; E. E. Ladd, of Readfield; C.

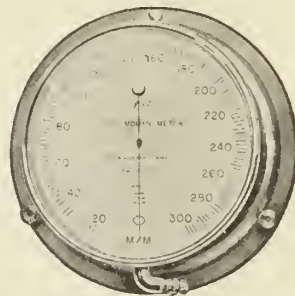


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Respectfully submitted,

FREDERICK R. CARTER,
Secretary.

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